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TO IMPROVE THE SOIL AND THE MIND.

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NOTES FROM THE SUSQUEHANNA—III.

The Susquehanna Valley Agricultural Society has its head quarters at Unadilla, where it has held three or four annual exhibitions with increasing success. Its members, and those of the Town Society of Bainbridge, co-operate heartily with one another, and the best of feeling exists between them, as well as between the two towns in other respects. The drive from Bainbridge to Unadilla, up the river valley, is one of about ten miles; there had been quite a deputation from the latter place present at the lecture the night before, and a party from Bainbridge returned the call by accompanying me to Unadilla Thursday afternoon, after the sight-seeing described in my notes last week was concluded. The officers of the Susquehanna Valley Society are:—President—IRA E. SHERMAN; CLARK I. HAYES, Treasurer, and R. W. COURTNEY, Secretary.

Our first call the next morning was upon Mr. HAYES, whose health had not admitted of his going out at all for some days previously, but who nevertheless undertook the task of showing us the improved stock in which for several years past he has been taking so much interest. Although engaged in banking, Mr. H. carries on a farm of 170 acres, and his father who died in 1857 at the advanced age of more than eighty, was one of the early pioneers in this part of the State—his business for a long period, consisting of grazing upon an extensive scale, buying steers at two years old, which could then be had at from \$12 to \$20 per head, and disposing of them after a twelve-month, at from \$50 to \$75 per pair. In the purchase and sale of stock, his experience thus became very great, and the practice acquired by Mr. Hayes in acting for his father, enabled him to judge in what respects improvement was especially required in the common cattle of the country, and, together with a natural taste for the subject, was an excellent fitting for his present undertakings as a breeder. He began with Short-Horns three or four years ago, rather with the view of bringing improved blood more within the reach of the farmers of the Susquehanna Valley, than for any other purpose, and his purchases have been of the best "blood," and such in individual character as he thought likely to prove of the greatest practical service. He has had some excellent animals from the importations and breeding of Dr. WENDELL of Albany, F. M. ROTCH, Esq., and Messrs. B. & C. S. HAINES; the present herd including nine females, and young stock sired by "Marmion" and "Lord Oxford," and thus or otherwise running back to a long line of "distinguished ancestry."

Finding however, that in a dairying country other crosses are sought for, and in order that his neighbors, if they could be induced to breed with greater care, might ex-

ercise a choice of their own in the premises, Mr. Hayes was subsequently induced to purchase an Ayrshire bull and cow, "Dandy 7th" and "Maggie," from E. P. PRENTICE, Esq., of this city. From this cow he has now had three heifer calves in succession, and expressed himself highly pleased with the result of the cross-bred or grade Ayrshire stock for dairying purposes—mentioning casually as we were canvassing the question of breeds, that a number of Scotch dairy farmers, at a distance of thirty miles away, have hired the bull for the past two years at \$75 each season, and that the oldest of his full-blood Ayrshire heifers, having calved when still under two years old, has produced, during its first year in milk, over 200 lbs. of butter. Mr. Prentice's experience has shown that Ayrshire milk has given 1 pound of butter to 6 quarts of milk, while with ordinary cows Mr. H. doubted if fully 12 quarts would not be required, in addition to which the Ayrshire has an advantage over the Short Horn in the fact that it appears to bear harder feed and treatment, although experience in the results of dairying with Short Horn crosses leads Mr. H. to entertain a high opinion of them for the purpose, under proper keep.

With regard to the age at which a heifer should be permitted to come in for the first time, the opinion is a common one that the younger she is, the more fully her milking properties will have the opportunity of development, but this is doubtless at a sacrifice in regard to size, &c., and I learned that the dairymen occasionally, after obtaining a calf from a two-year-old, allow a year to pass by without breeding from her again, in order that greater maturity in frame may be obtained. This matter, however, brought up as it was by the mention of the Ayrshire heifer above alluded to, has led us away from the barn-yard and stables, where we also saw two Alderney heifers bred by TANTOR of Hartford, and a young Alderney bull, which may be christened "Zouave," from the same herd, sired by the bull "Splendid," now owned by Mr. ROTCH. This will be an infusion of blood calculated, I can but think, to add a fraction to the already good prices at which the butter of this region is marketed in New-York; and the three breeds, Short Horn, Ayrshire and Alderney, being thus placed, as it were, on trial side by side, I trust that Mr. H., either personally or through the Society of which he is so prominent a member, will endeavor to encourage carefully conducted experiments as to the respective improvements which each is capable of bringing about in a butter-making country. This was a topic of so much interest, that the *Essex pigs* we might have seen were overlooked, and other points in farm management had scarcely a word of notice in our conversation.

We made several other calls—one upon Mr. H. C. GREGORY, whose barn we had noticed in passing it the night before, and who was one of the originators of the Society—another upon President SHERMAN, whose 300 acres or more of land lie across the river in the town of Sidney, Delaware county—but the time was short, and our stops were necessarily brief, and we had to give up seeing many good farmers and warm friends of the COUNTRY GENTLEMAN where we should have much enjoyed a passing visit—such, if I may venture to mention names, as Ex presidents David Hough and David Lee, M. B. Luther, Messrs. Peck, Chapin, and others. And in the afternoon in going to Franklin, where there was a lecture before the Farmers and Mechanics Club, there were recalled the names of such dairymen as S. L. Wattles,

whose butter I was told always rates as A 1, and who aims to reach about 250 lbs. per cow, and Walter Wattles, Seth and Thomas Bartlett, William and Ralph Dewey, &c., who yield to very few either in the quality or quantity of what they make.

R. H. VAN RENSSELAER, Esq., whose herd of Devons has been so long and favorably known, although having withdrawn three or four years since from his former prominent position as an extensive breeder, has lost none of his fondness for their uniform color and compact symmetry—a taste he still gratifies in caring for a few of his old favorites—among them imported "Lady Bird" and her descendants, and a very pretty lot, male and female, of their younger but scarcely less note-worthy relatives. Occasionally able to spare an animal or two from their number,—the possession of a bull or cow from the "Van Rensselaer Devons" is enough among the farmers, far or near, to give their cattle a stamp of superiority which few care to compete against at the Town and County Shows. Among his other pets are the Grey Dorkings and the Lop-eared Rabbits, for which Mr. V. R. and his neighbor Mr. ROTCH, have shown a marked preference, resulting in numerous importations of both during years gone by, and in their wide dissemination throughout the country.

About half a mile to the southward, is the residence of FRANCIS ROTCH, Esq., an Ex-president of the State Ag. Society, and his son, Hon. F. M. ROTCH, whose duties in the Senate of the State, confine him at Albany at this season of the year. Mr. R. senior was at home, and we had a pleasant call—surrounded in the library by the portraits of his farm-yard favorites, displaying in their execution the same skill which has been shown without in the breeding and management of the originals. With regard to the stock, we must confine ourselves, as we have been forced to do in other cases, to limits much less extended than the importance of the subject really demands. In "Lord Oxford," by "Duke of Gloster," out of "Oxford 13th," we have a specimen of THORNE'S Short-Horns, from the pedigree of which, much would be anticipated by those familiar with the subject. However great the anticipation, there could be no disappointment in seeing and scrutinizing the results of this pedigree as manifested in the animal himself. I do not know that I have ever seen an animal possessing greater "style," a finer front, and leaving throughout less room for criticism—I speak of him from the impression made as he first stepped out of his "box;" and the mere fact that he weighs in the neighborhood of thirty hundred, will show that he is not deficient at least in point of size. But when on farther examination we find this size so symmetrically put together, and so many "points" from crops to twist, in which the development attained is remarkably good—the geometrical attributes of "solids," length, breadth and thickness, well carried out, and the "Oxford touch" in quality, combined with a fine roan in color—we begin to think the bull is one about which the public at large should be better "posted up."

An effort has been made to obtain him in California, whither Mr. ROTCH has concluded heretofore several sales of very valuable animals at corresponding prices, but the amount offered, \$2,500—which looks tolerably large in these times—has been refused, in the belief that there is no source at present from which the loss of the animal could be fully repaired; for while Mr. Rotch, with his nice views of what constitutes perfection, assured me that "Lord Ox-

ford" did not *entirely* meet them,—perhaps in the quarters for instance—I can only repeat what was intimated at first, that I know of very few bulls here or elsewhere which will reach a similar standard of general excellence. Among the cows, there are "Grand Duchess," one of the only four or five sired in this country by "Grand Duke;" "2d Grand Duchess," from whose calf, sired by "Lord Oxford," considerable expectations may be entertained, but we must pass these by, together with the Alderneys, with scarcely a glance—the bull of the latter breed, "Splendid," although exceedingly nice of his kind, scarcely bearing the contrast with Lord Oxford to particular advantage.

"OAT-GROWING FARMING."

In some sections of our country—the hilly and frosty grazing regions perhaps—oat-growing farming (as far as grain raising is concerned,) may possibly be pursued with fair success. But in sections suited to the cereal crops, we find it more followed on rented farms and by the poorer class of farmers, than by those who own farms, especially if they are desirous of improving their fertility and productiveness. Perhaps we shall be better understood if we first define what we mean by "oat-growing farming." It is the cultivation of a farm mostly in this grain, with the least possible labor, and the most show of return for the same—mere plowing and sowing a large surface, and harvesting the crop. It secures in *favorable seasons*, a good many bushels of cheap grain, and large stacks of straw, and not much else in the way of farm crops. As generally pursued it rapidly exhausts the soil, as most of the grain is sold, and but little account made of the straw, or of any means of making manure for the farm. The rotation of crops is oats this year, and oats next, with a sprinkling of grass seed, which does not catch very well, so the land is again plowed up, sown to oats, and seeded again to grass, with no better success than before.

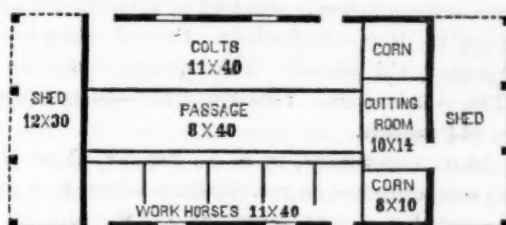
"Oat-growing farming" does not usually agree with success in any other branch of agriculture. It spoils the dairy, because if largely pursued it ruins both pasture and meadow; the rotation is too frequent for grass, the manuring too meagre to secure anything beyond a single crop. For the same reason it is difficult to keep sheep successfully, or to raise first rate stock. Its influence dwarfs the corn-field in size and product, and turns the wheat to chess,—these are crops which will not take the second place in the attention of the farmer—products which no one can produce for any long time successfully without improving the character of his soil, and rendering it *good* for most other crops.

We have not a word to say against growing oats in their proper place and turn, and for their proper use, but we do protest against the crop as the main dependance of a farmer for the purchase of his breadstuffs, &c., because we have frequently seen it tried and never knew it to succeed in anything but in running a farm into barrenness and weeds. On this point, a practical writer of the dairy region, in our last State Transactions, says, "We have heard the remark from farmers, that their land was more natural to oats than to wheat, and they could raise oats to sell, and buy their wheat easier than to raise it. The same men are apt to complain, after oatting their land pretty well, that the grass seed did not catch, and they could not get a sod on the ground; when the fact is, *the land is too much reduced to produce anything but weeds.*" He adds

what is unquestionably true, and a remedy for all the evils of oat-growing farming, "There is no danger of injuring the farm by raising oats, if they are *fed out*, and the *manure is put back on the land.*"

It is *easier*, as far as labor is concerned, to raise oats and buy wheat, than to raise wheat—that is, in sections not specially adapted to wheat-growing. But the labor required to grow wheat successfully tells on the whole character of the farm—it necessitates manuring and good culture in this and other crops—while oat-growing as generally pursued, is only another draft on the fertility of an already worn soil. And when oats are grown for feeding out on the farm, the return of the manure, with that from other products of the farm, will improve it—enable it to produce larger crops of grass, corn, oats, and wheat, or anything else to which it may perhaps be devoted.

We have pursued this subject farther than we intended at setting out, but it may be useful if it operates as a caution to any one pursuing this course. A farmer, with one or two hundred acres of land, cannot sell six to twelve or fifteen hundred bushels of oats year after year, without reducing his farm, and he can reduce it lower and *scarcely know it*, than with any other crop.



Ground Floor of a Stable.

MESSRS. L. TUCKER & SON—I send you a sketch of the ground floor of a stable I am now building for my farm horses, which I think about as good as anything in this country.

W. H. A.

Best Way to Keep Eggs.

MESSRS. EDS.—Taking it for granted that you would like to give your readers the best mode for preserving eggs, I send you a plan which I have tried with success.

On October 1st, 1860, I put up three crocks of eggs, containing about two dozen each. They were prepared as follows:

- Crock No. 1—Covered completely with salt.
- Do. 2—Greased completely with soft lard.
- Do. 3—Greased and then put in salt.

The object was to fill up the pores in the shell, and thus prevent evaporation.

I obtained the following result: The last ones were opened February 15th inst., after being in the crocks over one hundred and forty-eight days, and were found to be as good as when put in, almost five months before. The loss of the meat was almost imperceptible.

You see by my report that all the plans I adopted, were good; but I would recommend salt alone as most convenient. Salt is much cheaper than lard; it can be used over and over again for the same purpose, is much cleaner, and is much less trouble in putting up than lard.

This plan of putting up eggs in salt is old but good, and I think if your city subscribers would try it, they could save enough during the year coming in, to pay for the COUNTRY GENTLEMAN next year. C. G. F. *Berry Hill, Pa.*

PATIENCE IN MILKING.—A writer in the Ohio Farmer says that a cow was cured of holding up her milk, by patiently milking until she ceased to hold it; and by continuing the practice, she has become an easy regular milker, and a good cow.

EXPERIMENTS WITH MANURES.

The Secretary of the Maine Board of Agriculture invited farmers to try experiments to determine *the best depth for manure*. Four experiments were made—each with manure at four different depths,—1st, 8 inches; 2d, 4 inches; 3d, harrowed in; 4th, left on the surface. The results were not striking, but rather unsatisfactory, and we give them for what they are.

The first experiment was made by WM. GRINNELL of Penobscot county. The crop was corn—10 cords fresh manure per acre—one-fourth of an acre for each experiment. The first,—buried 8 inches,—gave 31 bushels of ears; the second,—4 inches,—gave 32 bushels; third,—harrowed in,—32 bushels; fourth—on the surface—33 bushels. Soil gravelly, season dry.

The second experiment was made by AUGUSTUS SPRAGUE of Androscoggin county. Soil, clayey loam, rather moist. Crop, potatoes. Manure fresh, 12 cords. The first quarter, manure 8 inches deep, at the rate of 202 bushels per acre—second, 4 inches, 218 bushels per acre—third, harrowed in, 213 bushels—fourth, on surface, 200 bushels.

The third experiment by SAMUEL HASKELL, Cumberland county. Soil light, sandy—manure fresh, 6 cords to the acre—crop, potatoes. Product of first quarter,—manure 8 inches deep,—27 bushels. Second quarter,—manure 4 inches, 26½ bushels. Third quarter,—manure cultivated in,—34 bushels. Fourth quarter,—manure spread on top, 34½ bushels.

The fourth experiment, by S. F. PERLEY, Cumberland county, was performed on gravelly loam—8 cords, "strong yard manure" per acre—crop, corn. Product of first fourth of an acre, 269 pounds of corn in the cob. Second fourth, 230 lbs. Third fourth, 253 lbs. Fourth quarter, 272 lbs. Season dry.

There are many causes which influence the results of such experiments, and therefore so few trials cannot establish a principle. We give them merely as contributions.

The first thing that we observe, is the little difference in the results of each kind of treatment—not greater than might often be expected from variations in the character of the soil. We think the latter cause may be the reason why the corn was so much less in the fourth experiment on the land manured four inches deep; or it may have made the soil too dry. All the soil was dry with one exception, and the surface manuring appears to have protected it very favorably from drouth. In the second experiment, where the soil was moist, this favorable result did not take place.

It is not probable that there was really much difference between the third and fourth modes of treatment, as the surface manure must be soon mixed up with the top soil by the act of cultivation.

Several considerations and variations suggest themselves in these experiments.

1. The quantity of fresh manure was too large to apply with advantage at a single depth, without first harrowing it well to break it fine and mix it with soil—doubtless with this care, it would have acted more efficiently, besides preventing the effects of drouth, which no doubt acted injuriously when the large masses of coarse fresh manure were buried only four inches deep.

2. If the manure could have been applied in autumn or winter, on freshly plowed land, a part would have soaked into the soil, and the rest might have been better pulverized with the harrow in spring; and both being plowed

under then to a moderate depth, it would have doubtless acted very efficiently.

3. If so large a quantity could be applied partly on the surface and partly plowed in, it would have unquestionably produced a better growth of the crop.

Experiments in Top-Dressing.

Mr. R. S. Rogers of South Danvers, Mass., contributes to the N. E. Farmer, a very interesting account of five experiments in top-dressing a meadow the past season, which we copy and condense below. He selected in April last a field of uniform sward, free from shade and other objections—"and staked out five several lots, each measuring 250 feet long by 45 feet wide, and top-dressed them with the various fertilizers, as follows:

No. 1.—2 cords of manure well rotted and mixed with 1½ horse-carts of soil.
No. 2.—120 bushels leached wood ashes.
No. 3.—2 cords green cow manure, the droppings of only a few days before.
No. 4.—80 bushels unleached or dry wood ashes.
No. 5.—255 lbs. Peruvian Guano, mixed with 1½ horse-carts of brook-mud.

"The cost or value of the top-dressing, for each lot, was as near ten dollars as possible. The grass was very carefully cut, and made the first crop in July, the second in September, and accurately weighed, yielding as follows:

First Crop.	Second Crop.	Aggregate.	
No. 1. 790 lbs.	330 lbs.	1,170 lbs.	Compost.
No. 2. 680 "	440 "	1,120 "	Leached ashes.
No. 3. 960 "	640 "	1,600 "	Green cow manure.
No. 4. 900 "	550 "	1,450 "	Dry ashes.
No. 5. 1,360 "	370 "	1,670 "	Peruvian guano.
4,630 "	2,380 "	7,010 "	

Upon these results, and in explanation, Mr. Rogers remarks: "The early spring was very dry, and quite a drouth prevailed during the months of April and May. This, no doubt, retarded vegetation, and checked, particularly, the fertilizing qualities of the ashes, as they laid in the sward for a length of time, as dry as when first spread. The copious rains, afterwards, produced a wonderful change in thickening up of the grass. The guano dressing produced much the largest quantity on the first crop, although very little more than the green cow manure with the aggregate of both crops."

Mr. R. thinks guano acts almost exclusively on the first crop, and is of the opinion that next season the green cow manure will be found superior and more reliable than either of the other fertilizers, as a general dressing. We hope he will weigh the crop and report the result for several years to come.

CULTURE OF CELERY.

A correspondent of the Co. GENT., in Wisconsin, in ordering a copy of Roessle's book on Celery Culture, adds: "I live in 44½ deg. north latitude, and raised celery last year here from 4 to 4½ feet high, and blanched from the root to the very top, and have a large quantity now in perfection. I have no trouble in keeping it until June. I sent a quantity of it to my friends in Chicago and Milwaukee, and they all say that they never saw any thing to compare with it. If I can get a book that will learn me how to beat what I now raise, I shall not think it much of a humbug, though I think any man can tell all he knows about raising and preserving celery for twenty-five cents." Will not our correspondent inform our readers how he has succeeded in growing and preserving his truly magnificent celery?

POTATOES.—We particularly invite attention to the advertisement of Mr. GOODRICH of Utica, in relation to his Seedling Potatoes. Mr. G. has devoted many years of intelligently directed labor, to the production of new and more hardy varieties of potatoes, in which he has been in a high degree successful; and we can but hope that he will receive the reward due to his persevering and long continued efforts.

THE CLOVER PLANT--SEEDING, Etc.

The importance of the clover plant to American Agriculture, will excuse (if excused it need be,) an annual presentation of the subject at the season for seeding to this crop. Still we shall seek to avoid repeating the same thoughts as far as may be, though there is authority for "line upon line, and precept upon precept," in urging all matters of moment upon the attention of those concerned in their application.

The common red clover (*Trifolium pratense*), is evidently a denizen of cultivated soils, and propagated and preserved only through the care of the agriculturist, as it differs materially from all wild or natural varieties, and if left to itself soon disappears before other kinds of herbage. It was at first, and for a long time, according to THAER, cultivated in gardens and isolated plots in pleasure grounds, probably for the beauty of its flowers. At last several observing farmers tried it as a forage plant, alone and in mixture with cereal grasses. "Since that time," (probably in the 15th century,) says Thaer, "clover has been regarded and used by many persons as the basis of Agriculture,* and the pivot on which it should turn; but with various results, according to the nature of the soil, and perhaps also of the climate. * * Finally, the system of alternate culture has assigned to clover a place in which it is sure to succeed, even on a soil not well adapted to its production. In this place (in rotation with other crops,) clover yields an advantageous produce, and at the same time maintains the soil in a favorable condition for the following crop."

There are two varieties of red clover, commonly known as the large or pea-vine clover, and the small. Of the former kind, Mr. GEDDES remarks that it "is but little cultivated, and is generally considered of less value for hay and pasture, and yields but a single crop of hay in a season; but when wanted for manure only, it is sometimes preferred for its heavy growth." The small kind will produce two good crops in a year, or one of hay and one of seed, on good soils. The Italian or Crimson clover is another variety, introduced by the Patent Office, but not yet grown except for its handsome flowers. It is an annual, of strong growth, readily eaten by stock, and hardy, continuing to grow and blossom until severe frosts occur, and may prove on further trial a valuable forage plant.

The soils most favorable to clover are those containing both lime and clay, not too great a proportion of the latter, but rather what is known as a clayey loam. On such a soil in a proper state of cultivation, "it is, as it were," to use Thaer's expression, "in its native abode; nothing is required beyond the spreading of the seed—the clover gets the better of all the plants that grow around it." It will thrive on all soils of sufficient depth and fertility, if favored by a season of sufficient moisture. Sandy loams, however, are often deficient in lime and also overcharged with acid, as shown by the growth of sorrel and dock; in such situations these plants are apt to overgrow the clover, nor will plaster have much tendency to prevent it. Ashes, or manure, will arrest this evil so that clover will succeed finally, and it is said that a mixture of ashes and plaster is much the best top-dressing for such lands, if not for all when in clover.

* It is still so regarded. Mr. GEDDES opens his chapter on Practical Agriculture, in his "Survey of Onondaga Co.," with these words: "The agriculture of Onondaga county is based on the clover plant. It is used for pasture, for hay, and for manure. Strike this plant out of existence, and a revolution would follow, that would make it necessary to learn everything anew in regard to cultivating our lands."

Clover is not sown alone, but with some other crop, because it rarely yields a very large crop the first year, and in the early stage of its growth, it is much assisted by the protection of another plant which may afterward give up the ground to it. "The sooner," says Thaer, "the crop with which clover is sown is harvested, the greater the strength of the clover." We had occasion to observe facts the past year, bearing somewhat upon this observation. A field, by the re-arrangement of the fences, included several kinds of grain; all were seeded to clover, so as furnish a large meadow for another year. The part devoted to winter wheat was seeded first, and is probably the best portion of the clover, owing mainly, no doubt, to the longer time after wheat harvest, which allowed it to become better established. The portion seeded on spring wheat is next best—the grain started up well, and was cut earlier than the portion in oats, where the clover is the lightest. The latter crop was also badly laid by the winds, thus hindering the growth of the clover—it was also harvested considerably later than the others. A narrow strip along one edge of the field, was seeded to flax and clover seed at the same time, but the flax-seed not growing, left the clover the only crop—except weeds. The land was rich, having been occupied as a lane for many years, and the clover crop was a fine one, still hardly equal to that on the winter wheat. Both portions gave occasional blossoms. The whole field, it should be remarked, was sown with plaster at the usual time.

Thaer especially commends the sowing of clover with buckwheat, on land not very well adapted to its growth, saying that he has seen it succeed much better than with other spring crops. Flax is also a favorable crop for seeding with in his opinion. In regard to clover on other crops, Mr. Geddes remarks:—"It is sometimes sown on oats, barley and spring wheat; but as it can be sown before the spring frosts are over on winter wheat, it is more certain to be covered by the freezing and thawing of the earth, and for this reason success is more certain than with any other crop."

Last season, (Co. Gent. April 12, 1860,) we discussed at considerable length, the various causes "why clover and the grass seeds did not vegetate as surely and grow as thriftily as other sown crops," and proposed different remedies applicable in each case—at least in our own experience. These we will recall in brief.

One cause of failure, from which we have suffered more than from any other, is that a drouth occurs in early summer, before the young clover gets sufficient growth to withstand its effects, and is burned or dried up. Remedy—Early sowing as may be, and manurial aid to induce a prompt and vigorous growth. On our soils plaster furnishes such a stimulant, and almost invariably insures success. A light top dressing of manure on spring grains is equally beneficial, and if the soil is not very fertile, should be given in addition to the dressing of plaster.

A second cause of failure is the deep covering, or no covering given to the seed. On winter grain, if sown in March, the frost will furnish a proper covering for clover seed; on spring grains the use of the roller—sowing the seed after the other grain is harrowed in, and then rolling down, will usually cover sufficiently. Or a light brush harrow may be passed over the field, or a light harrow in the usual form, made particularly for this purpose.

Another cause of failure is, that the land is run down to a very low state of fertility before it is seeded to grass. The remedy is to seed sooner or to apply the manure—both have been proved of efficacy.

The value of plaster or gypsum in the culture of clover, has recently received considerable attention in our columns. Its importance can scarcely be overrated, nor can the place which clover should hold in every improving system of rotation, be filled by any more cheaply produced or more useful crops.

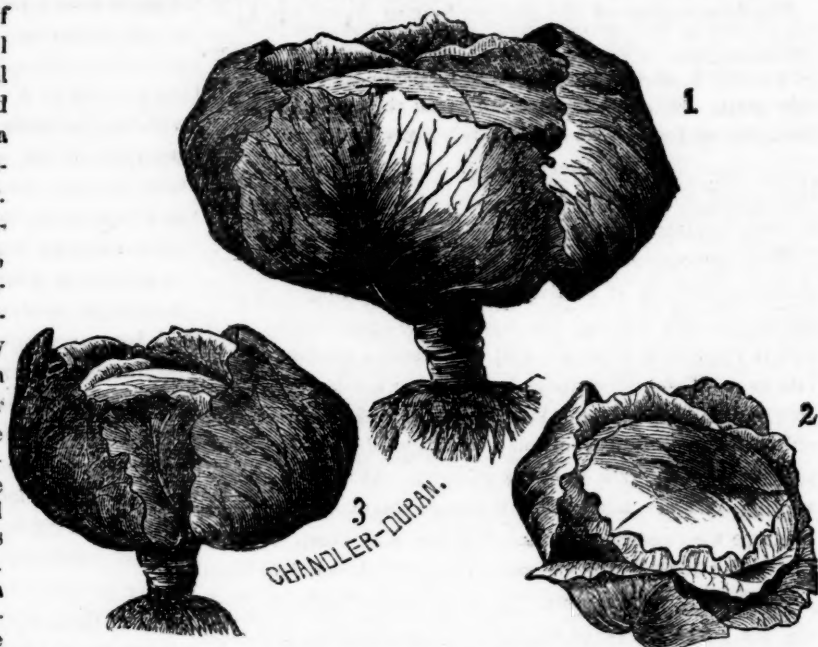
THE CULTIVATION OF THE CABBAGE AND PERPETUATING VARIETIES.

For cultivating a small fancy patch of cabbage, there are a great many fanciful directions floating about the agricultural press, most of which, by the stress laid on non-essentials, serve but to raise a smile on the face of the farmer who devotes broad acres to the Brassica family. Before our farmers can enter on the cultivation of cabbage as a standard crop, and around all large centres of population, particularly where the Irish and German elements preponderate, it speedily becomes a standard crop, it must be a matter that with him has progressed far beyond a mere fanciful experiment. He must have acquired that degree of knowledge and experience, which will enable him to drop his seed into the ground with as much reliance on the results as with his corn or any other standard crop.

I propose to present in this article a few directions, which, if faithfully carried out, will enable any farmer whose soil is of good natural strength, to attain this end. The three engravings are drawings from nature, of the three varieties of Drumhead cabbage, which originated in Marblehead, Mass., and from their tenderness, sweetness, reliability for heading and hardness of the heads, have become the standard fall and winter varieties in the markets of Boston, Salem, Lowell, and most of the large cities of New-England. No. 1 represents the *Marblehead Mammoth Drumhead*—No. 2 the *Mason Cabbage*, and No. 3 the *Stone-Mason*.

How were these characteristics of sweetness, tenderness, reliability for heading, and hardness of the head, secured and made permanent, are questions of general interest to every progressive farmer, on which I will present a few remarks. But, first, how shall we raise an acre of cabbage? Let the soil selected possess a good degree of natural strength—if it has a small per centage of clay in the subsoil, so much the better. Do not make the common mistake of selecting land that is too moist—when corn thrives, it is sufficiently moist for cabbage. If possible take sward land, on which, aside from other advantages, the young plants are less liable to injury from the cut-worm. If sward land is selected, (and it is as good as a general rule,) let it be broken up in early fall, that the sod may rot to a good degree before the coming of heavy frosts.

Now form the compost heap. On the piece devoted to cabbage, form a rich compost heap that shall make from six to ten cords of strong manure. With us on the sea-coast, such a heap will usually contain for its components, night-soil, muck, sea-manure, and barn manure, about one-fourth of each, to which is added about one-sixth additional of beach-sand, which serves a capital purpose in "cutting" the manure, as our farmers term it, which means that when the manure has been pulverized it tends to keep it so. With us a basin is made of the muck, and the night-soil poured into this, to which is added the barn and sea-manure. Neither night-soil, sea-manure, or muck, are absolutely necessary for success, though as cabbage is a hearty feeder, they greatly facilitate matters, and to fully succeed with so large a cabbage as the *Marblehead Mammoth*, night-soil, or some other powerful manure is indispensable. I have succeeded admirably with stable manure on which hogs had run at the rate of three hogs to two horses—adding, however, a small quantity of ashes and guano to the hill. But whatever enters into the compost heap, let it be most thoroughly pitched over two or three times, with short intervals between, until it is well *pulverized and commingled*. The difference between those who succeed and those who fail, in the use of the strongest manures, such as night-soil, glue manure and the like,



for the most part lies just here, in the degree of *pulverization* and *thoroughness* of commingling.

How shall we apply our compost? If you apply all directly to the hill, you do so with two risks, viz., that the ground beneath the young plants will soon become so dry as to kill them, or that when the plants become of size, the maggot or stump-foot will take the root. A better plan is to apply but a third to the hill, and the remainder broadcast, which will result in giving the cabbage plenty of food in its late growth, when, with the coolness of fall, comes its best growing weather.

How shall the ground be prepared? *Most thoroughly*. Give the acre two good plowings, if possible, and then a complete harrowing, and if then you run the cultivator across it a couple of times additional, so much the better.

Planting the seed. Yes, plant the seed in the hills where the cabbage is to grow, if for a fall or winter crop, but if for the early market, of course the plants will be started in the hot-bed. The advantage of planting the seed where the plants are to grow, (and the hills can easily be furrowed and cross furrowed,) is, that with your half dozen plants in each hill, you may consider yourself master of the cut-worm, the number of plants being plenty and to spare. As soon as the young plants break ground, be on the look-out for the black fly, so small as hardly to be seen, but sometimes a fearful devastator among the young cabbage plants. As soon as any small, light green spots are seen on the young leaves, know that he is at work, and sprinkle, when the dew is on, with plaster or lime *well air slaked*, and keep protected until the fourth leaf develops, when they have acquired a degree of toughness, and are past all injury from this tiny enemy.

Now for the cultivator and hoe. The general directions given by seedsmen is to plant too near to admit of the proper cultivation of a standard crop. We allow the *Mason* from $2\frac{1}{2}$ by $2\frac{1}{2}$ to $2\frac{1}{2}$ by 3—the *Stone-Mason* 3 by 3, and *Mammoth* 4 by 4, and find that in the end nothing is lost by the liberality. It is almost impossible to work the cultivator with advantage, particularly after the plant has begun to develop itself, between rows whose original distance was less than $2\frac{1}{2}$ feet, and I may add that it is impossible to develop a *Drumhead* cabbage, well proportioned and of good size, in rows that run nearer than this.

Our acre of plants will need thinning to two in the hill, when about the fifth leaf shows itself, and to one in the hill when they have spread to the diameter of a common saucer, leaving occasionally an extra one with the view of filling such blanks as the cut-worm, the hoof of the horse, a glance of the hoe from some stray rock, or a bounce of the cultivator, may make. Let the first cultivating be given just before the first thinning; the second just pre-

vious to the second thinning, and the third just as the tendency to set the head is evident. If time permits, a couple of extra cultivatings will be likely to show a favorable result in the gathering of the crop. Even cultivatings, to the extent of three, should be immediately followed by a hoeing, loosening the earth and slightly hilling it around the plant. If as the heads develop, they tend to crack slightly after heavy rains, do not always be in a hurry to market them; gently start the roots, which with our Stone Mason, will usually result in doubling the size of the cabbage.

Under such a system of culture, with seed of good varieties, grown from selected heads, and *wholly from the center shoot*, our farmer friends can hardly fail of finding their cabbage crop as reliable as their corn crop, and if the farmer becomes an adept in their cultivation, he may see what I have often seen, *every plant on an acre bearing a marketable head*. It matters not, in the northern and western States, whether the variety cultivated be as small as the Mason, or, like the Mammoth, as large over as a cart wheel, success will be equally certain, only let the manure be liberally applied for the larger sorts and the strongest land given them. In the south and south-west, I question whether the largest varieties, owing to the greater length of season required, which brings their time of maturity into weather too hot for their nature, can be cultivated with success. A field of well matured cabbages is not a type of grace, but in the symmetry of their proportions and rich bloom of the leaves, there is a degree of beauty.

PERPETUATING VARIETIES.—The length of this article will permit but a few remarks under this head. This is the law: *Be true to nature and she will be true to you*—that is, before nature will grant you a new variety she demands of you a perfect model to copy from. Let the cabbage whose characteristics you wish to perpetuate, have those characteristics thoroughly matured; then grow your seed from the center shoot only. The history of the three varieties at the head of this article is a capital illustration. About 20 years ago No. 2 (the Mason,) was raised by the gentleman whose name it bears, from a package of mixed seed of various kinds of cabbage, originally forwarded from London. The farmers of Eastern Massachusetts having generally adopted the Mason, became desirous of obtaining a variety, which, to the good qualities of the Mason, should add a larger head, more settled down into the leaves with a shorter stump. Accordingly Mr. John Stone selected for several years the best models for these ends, modifying his models of one year by the slight tendency to sport in the direction desired, as developed by the plants of the next year. Soon the Stone-Mason (No. 3) was produced and perpetuated by adhering each season closely to the final model, avoiding, in selecting seed cabbage, all that evinced any tendency to sport, and growing seed wholly from the center shoot of well matured heads, thus perpetuating the tendency to head on a short stump.

Mr. F. Alley, desiring to develop a variety which should combine the qualities of the original Mason with the greatest size possible, to be developed in the north, by pursuing the same route, finally originated the Marblehead Mammoth. It has been assumed by some that difference in size in different varieties of cabbage, is to be measured by difference in manuring and general cultivation; while it is generally true that the largest cabbages of any one variety are those that have received the highest culture, yet it will be found to be equally true, that size alone may be the distinguishing trait of distinct varieties.

I will close with a single injunction. If you wish to perpetuate your selected varieties, after having selected your models, remember that the individuality of the plant lies at the point where the stump terminates, in the center of the head—(in this respect there is a striking comparison to the termination of the spinal marrow in the brain of the human species—in each it is the vital center,) and the seed grown from this is the only seed that carries with it the characteristics of the plant; all below that, tending to increase the length of the stump, decrease the reliability

for heading, and in the course of but a few years producing but a worthless cumberer of the ground.

Marblehead, Mass.

JAMES J. H. GREGORY.

[For the Country Gentleman and Cultivator.]

REARING CALVES.

EDS. CO. GENT.—I see numerous articles on this subject, containing details in practice, which no doubt if well carried out, would secure the desired result. But there is a serious objection to most, if not all, of them—they consume too much valuable time. "Time is money," especially to the farmer; and if he can attain desired results by more simple methods, an important object is gained.

In the course of some thirty or forty years experience, I have invariably adopted the following method: The young calf is allowed to suck the cow for a few days—(that is whatever he may require)—until he gains sufficient strength and activity, which will be in ten to twelve days. During the latter part of this time, clover or other succulent green food, is given to the cow in such a manner that the calf may eat with her, which he will soon commence to do freely. Then the milk is drawn from one teat, and he takes the other three. Each successive week another teat is taken from him, until he is brought to depend entirely on grass, and is then turned to pasture; clover is best. No water is given until the heat of summer begins to expel the juices from the grass. In this way I have succeeded in raising fine calves, and they all pass through the winter ordeal without any difficulty. During the long period in which this method has been practiced, I cannot recall to recollection a single failure.

R. M. CONKLIN.

[For the Country Gentleman and Cultivator.]

POTATO BEER FOR BREAD.

The following recipe for making yeast bread, without the use of *milk*, I have used for two years, and like it much better than any other I have used. It raises much quicker, and keeps moist much longer than bread made in any other way.

Boil one dozen of medium sized potatoes in half a gallon of water. When thoroughly cooked, skim out and mash well. Then pour over them the water in which they were boiled, and add as much more cold water as is required to mix your bread with. When about milk warm stir in a quart of good hop yeast to a gallon of the beer, or more in proportion to the quantity you make. Let stand until morning; then sponge your bread with this beer; when light make up stiff; let rise again, work into loaves, and when light bake it. ANNA.

Near Peoria, Illinois.

[For the Country Gentleman and Cultivator.]

How to Prepare Quills for Pens.

MESSRS. EDITORS—I find in your issue of the 21st inst., an inquiry, signed "A Farmer who Writes," asking information about "clarifying goose quills." The only clarifying a goose quill needs, to make it fit for a pen, is *thorough drying*. Take the quill, scrape off the epidermis, cut off the end that grew next the goose about one-eighth or one-quarter of an inch, then make a small hole as near the tubular junction into the solid part as convenient, in order to separate the pith, and when that is removed, hang the quills in bunches of one dozen, suspended from the ceiling in a dry room for six months, and as much longer as you can, and you will have an article of quill that will surpass any clarified quill that was ever cut. It will be elastic and *very durable*.

Ogdensburg, Feb., 1861.

V. R. COLE.

Osage Orange for Hedges.

I notice some expressions of doubt as to the adaptability of this plant for hedging. Could the doubters ride with me for two hours, I might show them miles enough of fine growth of it to satisfy the most incredulous. With proper care it will turn all stock at four or five years old. The original cost is not greater than that of a board fence where lumber is worth \$12a\$14 per M.; and the annual expense of trimming is not greater than that of patching up old fences. N. N. N. Delavan, Tazewell Co., Ill.

DIRECTIONS FOR TRANSPLANTING.

1. First, have a good, deep, dry soil—well underdrained, if wet. Bad fruit is often caused by hidden water standing below the surface.

2. If not very fertile, it must be enriched by manure, which is best done a year or two before planting, as fresh, unmixd manure should never touch the newly set roots. Or strips of land eight feet wide for each row, may be deeply plowed with the dead furrow in the middle, (to promote drainage,) half a load or less of old manure or compost, placed for each tree, and thoroughly harrowed into the soil before setting.

3. If the ground has been well and deeply mellowed and enriched, the holes need be only large enough to receive the roots without bending; otherwise they should be five or six feet across, and a foot deep. On heavy land, inverted sods are good in the bottom. Large holes, filled with rich earth or old compost, will cause young trees to grow rapidly. Never place manure near the roots.

4. Pare off with a knife all bruised parts of the roots to prevent decay. Place the tree no deeper than it stood before—less deep is better than more. Fill the fine earth carefully among the roots, spreading them all out with the fingers. No cavities should ever be left among or beneath the roots, and the earth may be well settled among them by pouring in water when the hole is part filled. All except small trees need staking to protect from the wind.

5. Autumn and spring are both good seasons for transplanting—except that tender trees, as peach and apricot, do best in spring, unless on a dry bottom. The autumn is the better season to procure trees from distant nurseries, even for spring planting. They may be safely wintered by burying the roots deeply in earth, in a dry, sheltered situation. Trees should be always well shortened or cut in at the head, when set out.

6. Good, clean cultivation, is of the utmost importance. Neither corn, potatoes, nor fruit trees can flourish surrounded by weeds and grass sod.

7. Watering usually injures young trees by baking the earth. If necessary, lay the roots bare, pour on the water, and replace the earth. A rich soil, kept mellow, will not need water. Young cherry trees often die about mid-summer, unless mulched, or with the earth about them covered several inches with old straw or other litter. Trees dried by long carriage, may be restored by immersion for a day or two in water.

DEPREDATORS AND DISEASES.—Mice are excluded by banking up a foot around every tree, late in autumn—Curculios, by jarring down on sheets daily, and by turning in pigs and geese—Apple Tree Borers, by punching to death in their holes with a small twig—and the Peach Worm by cutting out with a knife. Fire Blight in the pear must be instantly cut off far down, and the branches burned—and the Black-knot may be kept off the plum by prompt and continued amputation, beginning in time.

DISTANCES FOR PLANTING.

Apples, standard,....	25 to 33 feet.	Plums, standard,.....	15 feet.
Apples, dwarf,.....	5 to 8 feet.	Plums, dwarf,.....	8 to 10 feet.
Pears, standard,.....	20 feet.	Quinces,.....	6 to 8 feet.
Pears, dwarf,.....	8 to 10 feet.	Grapes,.....	10 to 12 feet.
Peaches, headed back,...	12 feet.	Gooseberries & Currants,...	4 feet.
Cherries, standard,...	20 feet.	Raspberries,.....	4 feet.
Cherries, dwarf,	8 to 10 feet.	Blackberries,.....	6 to 8 feet.

For the above distances, the following is the number of trees required for an acre.

At 4 feet apart each way...	2,720	At 15 feet apart each way...	200
" 5 " "	1,742	" 18 " "	135
" 6 " "	1,200	" 20 " "	110
" 8 " "	680	" 25 " "	70
" 10 " "	430	" 30 " "	50
" 12 " "	325	" 33 " "	40

ORCHARD CATERPILLAR.

I have been trimming the orchard of John Gibson, Esq., and the enclosed specimens will show you what I found on some of the healthiest of his trees. Are they the larva of insects injurious to fruit or fruit trees? Will you answer, and confer a favor, or perhaps throw light in the path of pomologists in general. THOS. M. BLYTH, Gardener to J. Gibson, Esq.

The twigs sent are encircled by the rings of eggs which hatch into the common orchard caterpillar. Although this insect is known to most old orchardists, it may be new in its different forms to many of the younger class; and as the present moment is the time that it is most easily destroyed, by taking it in the eggs, we give the cut of one of these rings, published many years ago in the American Fruit Culturist, with the short account of the insect in that work.

The Caterpillar, (*Clisiocampa Americana*.) This has been a most serious enemy to the apple in most parts of the country. It has its seasons of increase and decrease. Some years it has nearly stripped whole orchards; and again it has diminished in numbers in successive years, till few could be found.

There are many species which feed on the apple leaf; but the only one of importance, is that known as the common orchard caterpillar, which is hatched in spring as soon as the leaf buds begin to open. At this time, it is not the tenth of an inch long, nor so large as a cambric needle, but it continues to increase constantly in size for several weeks, until two inches long and a quarter of an inch in diameter. It then spins a cocoon and passes to the pupa state. In the latter part of summer, it comes out a yellowish brown miller, lays its eggs and dies. The eggs are deposited in cylinders or rings, containing three to five hundred each, encircling the smaller branches, and usually within a few inches of the extremity. The accompanying figure represents one of these masses of eggs of the natural size. They remain through winter, protected from the weather by a vesicular water-proof varnish, and hatch in spring, as just stated. Each collection of eggs, makes a nest of caterpillars.



One nest is enough to defoliate a large branch, and when several are on a tree, the size and quality of the fruit is seriously lessened.

The best mode for their destruction, is to cut off the small branches which hold the eggs during autumn or winter, and commit them to the fire. The most convenient implement is a long pole, armed with a pair of clipping-shears, worked by a cord; or a sharp hooked knife, on the end of a pole, will answer nearly as well. The eggs are seen at a glance, after a little practice; a cloudy day should be selected to prevent pain to the eyes. If this work is done just at the moment the eggs are hatching, it will be equally efficacious, and the webs or downy covering of the young insects render them conspicuous. Every nest of eggs thus removed, which is done in a few seconds, totally prevents a nest of caterpillars in the spring, and is far more expeditious and effectual than the usual modes of brushing off the caterpillars with poles, brushes, or washing them with soap-suds, ley, or white-wash.

PROFIT OF SHEEP FARMING.—A correspondent of the Columbus Field Notes, who keeps an account with his sheep, says "the increase of my flock and the wool makes a profit of about three hundred dollars a year, from 112 acres of land, and about twenty acres of that in woods, besides keeping enough other stock for my own use. I consider sheep the most profitable stock that I can raise; they give sure and quick returns."

[For the Country Gentleman and Cultivator.]

FARMING ON THE PRAIRIE.

G. OF NORTHERN ILLINOIS TO B. OF WESTERN NEW-YORK.

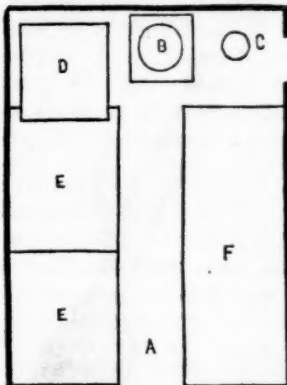
A——, LEE Co., Illinois, Feb. 19, 1861.

MY DEAR B——. "Yours since '52." Yes and I am grateful for your friendly aid, and for the progress I have been able to make. I see "much land yet to be possessed," and believe one can learn more rapidly as they advance in an intelligent understanding of the great lessons of life and nature. * * *

One conclusion I have arrived at, is, that farmers must improve themselves if their farm stock and products are to be improved. This is a great fact—throughout the earth, man-culture and earth-culture are parallel. Another thing has impressed me of late; that the majority of our business men are not well trained, and that farmers, equally with others, need a *business education*. This need shows itself daily in myself and others with whom I have to do.

The first of the month I was again at Mr. C.'s. His Durham cow "Carnation" has brought a white calf, and it is a beauty. He keeps it in the same stable with three fine-wooled sheep, thinking it a good plan to keep sheep and calves together. The little fellow has seen some cold days, and once came near freezing.

I told you I thought C.'s swill-house a model, though small and of trifling cost, compared with its usefulness and value. You have the description below.



A. entrance into passage leading to fire-place B., where a seventy gallon cauldron or mush kettle, is placed in a brick arch with good chimney. C. is a well with pump and spout leading to the kettle. D. is a "steam box," about four feet above the ground, and projecting a foot or two over the swill-bin, E., and leaving space under the box for storing tools, fuel, &c. The steam-box is about four by four, and

six feet in length. The swill bins are six by four and a half feet, and F. is a bin for meal or grain.

When we were at this mush factory in January, that huge kettle was full of golden corn pudding. The next morning it was dispensed to the swine still smoking warm, though the night had been cold, and the arch without fire.

Husking corn goes on yet—though the snow has been so deep for months that many have postponed, (one neighbor has sixty acres to pick.) I am nearly done, and *guess* I shall get 30 cents a bushel for my crop. One man, "poor as a rat" 14 years ago, grew last season 200 acres of corn, turning 12,000 bushels of shelled corn. I have over 2,000 from 40 acres.

My farm stock are all "troubled" with enough to eat, and they show its effects in growth, good looks, good manners and kindly dispositions. Such should be the fare, not only of animals, but the soil—it will pay in every department of farm husbandry. Yours truly, G.

[For the Country Gentleman and Cultivator.]

WORKSHOPS ON THE FARM.

Much as has been written on this subject, there is room for more. Indeed it seems that much more will have to be written before farmers will appreciate this important appendage to the farm. A shop fitted up, 10 by 12, (larger would be better,) well lighted, and containing a bench furnished with a vice, together with a collection of carpenter's tools, something as follows—five augers, four chisels, three saws, three planes, a square, tri-square, hammers, drawing knife, bit stock and bits, a scratch awl, file, mallet, compass, &c., with places for everything, is about the kind of a shop and tools for the farm. A shop of the above description, where the farmer and his sons can spend

their rainy days, is almost indispensable on every well regulated farm. There are rainy days enough every year for the farmer to keep his premises in good repairs without employing a carpenter, except for the large and important jobs, provided he has a shop with proper and sufficient tools, by applying them at the right time.

It is too often the case that the carpenter's tools are by far too scarce on the farm, a hammer, an auger or two, and a saw, constituting all the carpenter's tools on the farm. And it is nearly always the case that the general appearance about the house and barn indicate this, as, for example, gates off their hinges, or broken down, boards off the barn or fences, and a general slipshod appearance all over the farm.

There is another fact concerning farmers of this class, and that is that the numbers and kind of farming implements generally correspond with their carpenter's tools; consequently they are generally classed among those called *poor farmers*. On the other hand, a farmer who has sons growing up around him, if he has a shop he need never be at a loss to find employment for them on rainy days. A hundred little jobs are constantly waiting to be done, and besides furnishing employment (which is a great deal,) and giving the place a neat and tidy aspect by keeping things in repair; his sons are receiving invaluable lessons which will be of lasting importance to them. A boy brought up to use the bench and tools becomes at the age of sixteen a carpenter, or at least has acquired sufficient skill to perform all the rough carpenter's work on a farm. This has been a branch of rural economy much neglected by our farmers; but I am glad to see that farmers are taking a new interest in this important feature of the farm, and the heathenish practice of converting the kitchen into a workshop, is now nearly abolished. D. B. E. Warren, O.

[For the Country Gentleman and Cultivator.]

TROUBLESOME WEEDS.

RUDBECKIA HIRTA.—This plant, described by Mr. Goodrich in the last no. Co. GENT., has been recently introduced with grass seed in various parts of this county, and although not yet seen much, if at all, beyond the fields where it was sown, bids fair to become quite too common. It has been transplanted to the flower garden in some places, and may, perhaps, be disseminated in that way.

SPURRY.—This troublesome weed found its way into several fields on my farm a few years since, and I have not yet been able to eradicate it entirely. Its growth is very rapid, and being rather small and inconspicuous, it is very liable to escape notice, especially if it happens to come up under some thick leaved plant, where its seeds are ripened quickly and abundantly, ready for dispersion. I wish to call the particular attention of those who think of sowing this plant to plow under, as I believe some of your readers have proposed to do, for I believe they will see cause to regret such a move.

CHICORY.—This too, I think requires showing up, from the fact that it is sometimes highly recommended as a profitable crop, by correspondents of agricultural papers. It is quite common along the roadsides in the eastern part of this State, and last year I found a single plant of it on a field seeded the previous year upon my own farm, and a man in my employ told me that he found a single plant of it on his father's farm, some fifteen miles from this place. In my opinion, this is a plant which will make its way into our fields soon enough without our voluntary aid.

These three plants have been introduced into my fields with grass seed, a very common way of scattering noxious weeds about the country.

"Every worthless intruder should be regarded with a jealous eye, by the farmer," says Darlington, a caution which every farmer should heed, bearing in mind that the sooner he ascertains the character of every new comer and the more promptly he declares war upon the worthless, the more surely he will succeed in extermination and the labor will be diminished in a geometrical ratio

Ashfield, Mass.

WM. F. BASSETT.

[For the Cultivator and Country Gentleman.]
Opportunities and Drawbacks of Farm Life.

BRATTLEBORO, Vt., Feb. 12, 1861.

MESSRS. L. TUCKER & SON—I have your favor of the 8th inst., inclosing the correspondence of your friend "E." You request my views on the matters suggested in that correspondence; and I am happy to respond at once, only regretting that I have not leisure at this time to give you more than a hasty reply.

Some of the observations of "E.'s" Wisconsin friend quite surprise me. Having no personal knowledge of the agriculture of that State, I cannot say whether or no his remarks are correct as applied to farming there; but they would be incorrect if applied to New-England. The man whose ambition and aim it is to acquire great wealth or support an expensive and showy style of living, will not be able to attain those ends by farming; but he who has a taste for and is content with a rural life, with those moderate but certain gains which with ordinary frugality enable one to live quite generously and independently, and with that happy combination of business and surrounding influences of nature and of home in the country, which so favorably conspire to give a family of children about the best early training in every respect they could have to prepare them for entering upon the duties and scenes of later life, may usually realize these ends in the pursuit of agriculture. A man owning 160 acres of land of a fair average quality and location in New-England, together with a cash capital of \$2,000 to operate with, could hardly fail of doing well at farming, if he had industrious habits, a taste for agriculture, and good judgment to guide him. He need not necessarily lead a "slavish" life, toil "from early dawn to dewy eve," nor "make labor his early pleasure, and sleep his only recreation." On the contrary, he would, generally speaking, be less subject to harassing toils and care, and run less risk of losing the reward of labor than men who follow the trades and professions.

Numerous instances might be named, for New England is full of them, of persons who began farming with little or no capital, running into debt nearly to the extent of the value of their farm; and yet by the legitimate operations of farming alone they have paid off every incumbrance upon the farm, lived very comfortably, brought up their children well, giving them good advantages of education, together with perhaps more or less of a "setting-out" when arriving at an age to enter upon life for themselves, and still have the farm left, and sufficient personal property with it to make them comfortable and independent in old age. Not unlikely some of these children have grown to be now the foremost men of the nation, whether as leading business men in the large cities, or as statesmen, or persons distinguished for ability in various other walks of life. If we examine the history of the leading men of the day, no matter in what department or calling, we find that a very large share of them had their nativity and early training on these farms in the country, and what is more, the successors of these men will, in a very large degree, be again supplied from these farms.

I have this moment in mind one of the best farmers in Vermont, an active and able Director in our State Agricultural Society, who at an early age was left an orphan and penniless, and was bound out by the town authorities for a support during his minority. After the age of twenty-one years, he worked for wages at farming a few years, thus accumulating a few hundred dollars, with which he commenced farming on his own account, paying a small sum down towards the purchase of his farm, and mortgaging a large remainder of its value, to be liquidated in after years by annual payments of a stipulated amount each. He now owns his farm clear, a large and valuable stock of animals, substantial and superb buildings, &c., all paid for; has given his children superior advantages of education, and is still an active business man, also a well read man, possessing a large knowledge of men and things derived

from personal observation. I do not know of a more complete triumph over adversity in early life than this man has achieved, and his worldly success has all come by farming.

Another instance now in mind, is that of a man who commenced farming with a poor farm of some 200 acres, paid for, but with considerable less than \$2,000 capital besides his land, and who never possessed a sufficiently rugged constitution to do a full day's work in the field. By nice care of himself, aided by the naturally health-giving occupations and amusements of farming, he considerably strengthened a weak constitution and made it hold out to the ripe age of some seventy years. Though not able himself to perform the heavier kinds of labor and cultivation of the farm, yet he planned and directed it all, and with his own hands planted and trained up orchards of various kinds of fruit, and devised and executed various other improvements, ornamental or substantial. He raised an interesting and refined family, fitted them well for active life, added more than three-fold to the value of his real estate, besides leaving at his decease several thousand dollars of personal property invested at interest.

In speaking thus favorably of agriculture I do not wish to make an erroneous impression upon your friend "E." Every man has his own peculiar difficulties to contend with, and every business has its drawbacks. To be successful and contented and happy at farming, a man must have a natural and quite decided taste for it, and considerable enthusiasm in its pursuit. Perhaps there is no business whatever to which this remark applies with greater force. The farmer has to do continually with the great laws and works of nature, and his pursuit is certainly an intellectual one. Very interesting and important subjects of inquiry are continually presenting themselves to him, and to understand and solve them correctly, he must have a turn for and the habit of extended and minute personal observation, and of reading and reflection. These personal intellectual attainments are what make him truly a *practical* farmer, and enable him to generalize and to devise a system of cultivation and farm management adapted to his own farm, and to cut loose from mere traditions and customs of husbandry which so often prove an incubus upon farming, and have operated to bring the business into disrepute. Truly in farming, if in any pursuit,

"Mind makes the man, and want of it the fellow."

Whether or not it would be advisable for your correspondent to go to farming in Illinois, with 160 acres of land paid for and \$2,000 of capital besides, I am unable to say, for want of a personal knowledge of that country. If he concludes to try farming there, I would say that success will come more by a natural taste and aptitude for the pursuit, and an ability to plan well, than by the mere physical labor of his hands. I know of no business where a little floating capital, to operate with, is more advantageous than in farming. It enables one to take advantage of the markets in buying and selling produce, stock, &c., at the best time, and to adapt his operations to the peculiarities of times and seasons. E. will do well to bear this in mind. If wheat is the principal crop in that section, raised by all, perhaps he could make more by cultivating to a considerable extent some other crops, not so commonly raised there, or by the rearing of nice stock, or by the purchase of store stock, for the purpose of fattening for the markets. Or if he makes wheat the leading crop, perhaps he can devise improvements upon the methods of tillage there commonly practiced, by which the yield and the profit of the crop shall be considerably greater than that commonly obtained. If drainage is needed, then its employment may increase the crop and profit. If the plowing and other tillage is shallow, superficial and hasty, perhaps much deeper and more particular and thorough culture would pay well at once. This is not an uncommon effect in other sections of the country. If the use of manure is erroneously discarded, perhaps attention to its manufacture, and a proper adaptation of it to the different soils or crops might prove profitable. We often hear of crops of wheat in England and Scotland that average from 50 to 60 bushels per acre, on land that has been tilled for

centuries. Cannot the virgin soils of the west be profitably so tilled as to produce as large crops of wheat as these old soils? Land is valuable and profitable considerably in proportion to the excellence of the cultivation bestowed upon it. Success in farming comes more from a thorough system of culture and of farm-management, wisely adapted to one's case, than from natural richness of land. I advise your correspondent not to depend too much on the natural fertility of the land, and the cheap and superficial cultivation or working of the same, for a profit; but rather let him devise a system of sound, thorough culture, adapted to his land and markets, and in all paying ways aid the natural resources of his soil by the application of mind and science to his farming.

Thus, gentlemen, I have hastily complied with your request, and leave it for you to use as much or as little of what I have written as you may think best.

F. HOLBROOK.

[For the Country Gentleman and Cultivator.]

Two Crops of Hay from the Seed the Same Season—Hay Caps.

MESSRS. EDITORS—I had a piece of land of four acres, which had been in corn and potatoes on green-sward in 1859—manured heavily for the corn and potatoes. Three-fourths of the bulk of the manure was composed of swamp muck, was put on after plowing, and harrowed and cultivated into the soil. Soil fine sandy loam, made by the overflow of the water in early days. It has not been flowed for fifty years—was plowed in the fall of 1859. In the spring of 1860, it was thoroughly worked with a horse steel-tooth cultivator and fine harrow, sowed with half a bushel of clover, herds-grass and red top seed to the acre, and harrowed and rolled. The first week in July many of the clover and herds-grass heads were in blossom, and many spots had lodged. It was then mown, and cured (five good sunny days) mostly in the cock; then housed, producing six tons.

By the middle of September it was full in the blow—was again cut and cured, and produced seven tons, making 13 tons from four acres, worth here \$16 per ton, or \$52 per acre. Although the season here was extremely dry up to the middle of August, and one half ton to the acre was a good yield for our upland meadows, this spring-seeded piece did not seem to lack for moisture. I think it was from the freshness and recent thorough pulverization of the soil in part, although always an extra piece for meadow. The prospect for future crops of hay from this piece, is better than on any piece seeded with a grain crop.

I have often cut large crops of hay seeded in the spring on green sward once plowed, at one mowing about the 1st of Sept., when at the 1st of July they had but little growth on land as good as this; and am convinced that the early maturity of this first crop was mostly owing to the thorough and deep pulverization of the soil.

One word in favor of hay caps. I had thirty made the commencement of haying, of common yard-wide sheeting, four yards in a cap. A smaller size will answer as well in most cases. The cloth had nothing put on to turn water, yet I never could discover any wetting through into the hay, and have carted many a load that had been cap-covered through a rain without opening. Mine were out in the fields most of the time for ten weeks, where there were plenty of grasshoppers, and I think they have not eaten them at all. I assure hay-makers that hay caps are a thing that will pay. H. W. LESTER. Rutland, Vt.

[For the Country Gentleman and Cultivator.]

The Garnet Chili and Prince Albert Potatoes.

The Garnet Chili potato has done well with me the past season. The yield was satisfactory, tubers generally large, and the fewest small ones of any crop I ever raised. The quality was very good, though we do not consider them as

good as Prince Alberts. From the roughness and thickness of the skin, I would suppose that they would be exempt from the rot. This, in addition to their other merits, should cause their general introduction, and thorough trial.

Prince Alberts, planted the same day with the Garnets, in same field—soil and culture similar in every respect—yielded about one-third more—an excellent crop; the bulk of them medium to very large, with a considerable number of small ones. After two years trial with this variety, I am highly pleased with it, both in regard to its productiveness and quality. We greatly prefer them to the Mercers for table use, while the yield is nearly double that of the latter, and they have not yet shown any symptoms of the rot, though all sorts that I planted this year, excepting Garnets and Prince Alberts, were badly diseased.

It has occurred to me that varieties might be selected for planting in localities where the disease is most frequent, that would escape its ravages. If there is any variety that is proof against the rot, and at the same time a good table potato, its universal culture would add immensely to the wealth of the country, as well as to the comfort of all classes.

From my limited experience, as well as the testimony of numerous parties in other localities, I should expect more from the Garnet Chili in this respect, than any other that I have seen. E. Y. TEAS. Richmond, Ind.

[For the Country Gentleman and Cultivator.]

WILLOW HEDGES.

L. TUCKER & SON—Having received several letters, asking me to state through your paper how I grow my Osier willow hedge, and why I prefer it for a farm fence, I avail myself of a little leisure to reply. I set the cuttings in a single row, by pushing them into well prepared soil, about eight inches deep and six inches apart in the row, and hoe them twice the first year. They will make a growth of four to six feet the first season. Care should be taken to push the cuttings the right end up, and that every cutting be of good size and fresh, as every cutting should grow, so that there be no breaks in the fence, for they are not easily filled when once made.

The second spring cut all off close to the ground, and you may expect a hedge at the close of the growing season as thick and tall as the one shown in the COUNTRY GENT. of Jan. 17th, which I have trimmed and formed into a fence as follows: Stretch a line at three feet from the surface, through the center of the hedge, and cut off the willows that touch the line. This gives a straight row of equal height, which are used as standards, through which the long willows left uncut on each side of the line are interlaced, finishing up by a sort of rope-like binding at the top of the cut standards the entire length of the hedge, forming a stout rope of live willow, near two inches in diameter, held in place by live stakes which no freshet or overflow will be able to move from its foundation.

I prefer the willow for hedging, first, because it is of easy culture and rapid growth. It readily furnishes the material for other hedges, bands, withes, ox whips and baskets—the annual trimmings giving a profit. It is so intensely bitter, that mice and rabbits will not gnaw the bark. This cannot be said of the thorn or Osage Orange, which I am told by Illinois farmers, is much injured in their State, by field mice. The roots of the willow will not sprout when cut with a plow. It will make a tight, durable and paying fence, sooner than any plant or shrub with which I am acquainted, and at a trifling cost. It is perfectly hardy, and is not injured by heat or the severest freezing. Its foliage is the last to yield to the saddening influence of early winter, and its graceful rods wave before the wind as prettily as an ostrich feather in a lady's hat. D. L. HALSEY. Victory, N. Y., Feb. 20, 1861.

It is dangerous for one to climb his family-tree too high, for he is very apt to get among dead and decayed branches.

[For the Country Gentleman and Cultivator.]

Farming as Compared with Other Pursuits.

MESSRS. EDITORS—I perceive your friend E. received quite a damper upon his farming prospects, in a letter from Wisconsin, published in the COUNTRY GENTLEMAN of Feb. 14, page 106, in which the occupation of farming is held in very low estimation, lower than the "mechanic, the clerk, or the day laborer;" and again, "the most laborious and least profitable of almost any branch of labor." The writer of that letter says he speaks from what he has seen and known; of course he ought to know, but he confines his remarks to those "who have been brought up and educated to other means of a living," than "to that most slavish of all lives," the farmer.

Now all this may be true in Wisconsin, applied to those who know nothing about farming, and who enter upon the business as a mere recreation, a pleasure and a pastime. Such men can scarcely make money in the business any where—much less in a new country where labor is high and produce low. A man must understand his business to be successful in it. I was bred a farmer, and pass for a good one; have succeeded in it; but should I quit it, and go to preaching or merchandising, it would without doubt be a failure.

As a general rule, a man will succeed best in the business he has been trained and educated to. "Practice makes perfect," is an old adage and a true one. But I would recommend to your friend E., as he really seems to desire information upon the subject, not to take too much stock in those random assertions, "the most slavish of all lives"—"the life of the mechanic, the clerk or the day-laboring man is above and preferable to it—of necessity lives a hard life," etc. Of course I do not profess to know what the farmers' lives and prospects are in Wisconsin, but they cannot be so deplorable in all cases, as represented by the author of that letter, for there are scores and hundreds there, emigrants from New-Hampshire and Vermont, who have grown rich by the enhanced value and cultivation of their lands.

Your inquirer E., says he has a "decided proclivity to farm pursuits," and has endeavored to learn and inform himself as to its management and detail in past years—has a good education, is aware of the toil, diligence and watchful attention necessary to success, and writes like a man that has a taste for rural life, with energy and perseverance to carry it out, with 160 acres of good land and \$2000—over and above. Thus circumstanced, with a reasonable share of prudence and economy, I can hardly conceive of a failure. Certainly not here in Vermont. With a farm of that area on our hills or in our valleys, with the loose capital spoken of, he need not make himself, his wife or children slaves, nor lead an irksome, unpleasant life. Care, attention, economy, would be necessary; and so it is in all other business, if we expect success. The hazard is less by far, than in many other branches. The returns are sure, and will be, so long as seed time and harvest continue. Panics may depress and injure, but they cannot ruin and destroy us.

Were I to undertake to enumerate the instances within my knowledge, of successful farmers, who began with much less means than E. has at his command—some with nothing at all—and who are now men of wealth, possessing, in addition to their farms, bonds, mortgages and bank stock, it would be a hopeless task; their names are legion. Were I to seek out and count the rich "mechanics, the clerks, the day-laboring men," *whose lives are so much preferable to the farmer*, the task would be easy; they are few and far between. I say then to your earnest inquirer, "go ahead!" Be not disheartened by the croakings or the dark picture drawn by your Wisconsin friend, and when you put your hand to the plow do not look back; you have the material, the means for success. If you are only true to yourself, success awaits you. You can adorn and beautify your prairie home, and when you have done with it, you have something permanent and real to leave

to the inheritance of the loved ones that come after, whose paternal acres may be held as a sacred trust for after generations.

Three years ago I listened to an address at an Agricultural Fair, in which the speaker chose for his theme, "farming as compared with other pursuits." He began with himself; he was a printer by trade, though bred to the farm in early life. He looked upon boys behind counters, in bookstores and printing offices, with envy, and was most happy to escape from the farm to learn a gentleman's trade. He had never been able to get higher than journeyman and job-work, and had just kept his head above water, as he expressed it, and support a small family, by close application, and working more days in a year, and more hours in a day, than any farmer he ever knew. He was then on the down-hill of life, and very feelingly expressed his regret that he had ever left the farm, for he sincerely believed that pecuniarily he might have been far better off to have followed his early pursuit, and that his declining years would have been much happier. He then adverted to the careers of fourteen of his relatives, brothers, cousins, uncles, brothers-in-law, &c., all of whom were bred in early life to the farm; but five only had adhered to their first calling; three of them were rich, and two in moderate comfortable circumstances. Of the nine that had abandoned the farm for something more fascinating and desirable, trades, merchandizing and professions, five had made a precarious and scanty living, two were wretchedly poor—had been on charity—two others possessed a small property, about equal to the two farmers who had the least property. This he gave us as a truthful picture; he had the means of knowing. I had no doubt of its accuracy. And so we should find it throughout our country, could we obtain the true statistics of these things.

At the West, in all new countries, farming is not as profitable as in the older regions. There labor is scarce and high; everything that a farmer must purchase is dear; his produce, being more remote from the seaboard, is lower—lower in proportion to the distance and cost of transportation to market. But his lands are cheap and productive; time, patience, energy and perseverance will bring him up to competency and independence. Let him hold on with a good heart and a stout arm, through the incipient stages which all new countries must pass, and when roads, mills, school houses and churches are built, and the inhabitants begin to swarm as bees from a hive, and the rise of land of itself will go far to make him rich.

In New-England, out of the large towns and cities, as a class, no other branch of business in the aggregate pays so well as farming. I presume it is so in New-York, and in all the old settled States. Here and there is a case in the professions, in merchandizing, in manufacturing, among the mechanical trades, where fortunes are made, and individuals of great wealth stand out prominently before the multitude, attracting thousands to try and do likewise; but take the whole gains of these diversified pursuits for the last ten years, compare them with the whole gains of the farming interest, (I mean the nett gains only,) in proportion to numbers engaged in each, and on which side would the balance show? I may be mistaken, but in my humble judgment the result would be largely in favor of the farming interest, much as it is depreciated, much as it is shunned and dreaded.

J. W. COLBURN.

Springfield, Vt., Feb. 19, 1861.

[For the Country Gentleman and Cultivator.]

CRANBERRY CULTURE.

I noticed in the COUNTRY GENTLEMAN of Feb. 21st, an inquiry in regard to the adaptation of a plot of ground for cranberry culture, and an intimation to some of your readers, familiar with the subject, to answer the inquiry. Not having noticed a reply to the question proposed, I will endeavor briefly to impart the desired information. Your correspondent states that he has "about three-quarters of an acre of flat, swampy land, producing nothing but coarse

swamp grass, and which is overflowed at every wet spell of weather," and makes the inquiry, "would it not be a good place for cranberries, and if so, when and how should they be planted?"

In answering the inquiry, I would say, from the description given of the plot, it seems very well adapted to cranberry culture, and with proper preparation would doubtless produce liberal crops of this estimable fruit. I infer that his meadow can be drained. This, then, would be the first operation, and one somewhat essential to his future success. As soon as it is sufficiently drained to admit of working, burn over the surface to clear it of the coarse meadow grass, and if sufficiently dry, plow it as for any other crop, and plant out the vines as hereafter described. If it remains still too wet to plow, the removal of the entire surface, with the grass, roots, &c., to the depth of three or four inches, will answer the same purpose. The portion removed will be worth the cost, for the barn-yard or compost heap. The plot may then be planted with the vines in rows about 30 inches apart, and as near together in the row as the quantity of plants to be used will allow; the nearer the better, as they will much sooner become matted or cover the entire plot. They may be set any distance, from six inches to two feet, and in time (three or four years,) at two feet apart they will cover the ground; but it is desirable to have them mat soon, and for this purpose they should be planted nearer. Twelve or fourteen inches may be considered the best distance for ordinary planting.

The plants should be well rooted, bearing vines, of some cultivated variety, (the "Cape Cod Cherry" is the best,) and the roots covered at least to the depth of two and a half to three inches. If the soil is of a clay or peat, the surface should be covered to the depth of two or three inches with sand, to prevent its baking, which would be likely to destroy the young plants. After the vines become rooted they will require cultivation with the hoe the same as ordinary field or garden crops, until the ground becomes overspread by the vines, but after that no more care is needed. A plot planted in this way with the Cherry variety, will generally produce a small crop the second year, and the third season yield, under favorable circumstances, about one hundred and fifty bushels to the acre. A friend of the writer obtained last fall three bushels of very fine fruit, from a plot of two square rods of ground, it being only the third year from planting.

The best time for planting the vines is the spring. From the middle of April to the first or middle of June will answer very well in the Northern or Middle States.* Fall planting at the north, unless the ground can be flowed, which is always desirable, sometimes proves a failure from the plants being thrown out by the frost during the winter.

If your correspondent can conveniently flow his grounds by erecting a cheap dam, and shutting on the water during the winter months, it will be desirable, yet not essentially important.

WM. H. STARR,

East New-London Nurseries, New-London, Conn.

(For the Country Gentleman and Cultivator.)

Valuable Suggestions about Manures.

MESSRS. L. TUCKER & SON—A few thoughts upon the subject of manures have suggested themselves to my mind, by reading some of the late nos. of Co. GENTLEMAN. It is a subject of vast importance to us New-England farmers, and is worthy of much more attention than it receives. If every farmer would give his attention to saving all the manure that can be saved upon his premises, thousands upon thousands of dollars would be saved to the country every year, and many farmers would be saved from bankruptcy beside, and instead of barren and sterile fields which we see in passing over the country, we should see fruitful fields, yielding an abundant harvest.

The more hay and grain the farmer can raise, the more manure he can make, if it is all fed out, and the straw used for bedding in the winter management of his stock,

as it should be. The farmer who sells his straw and hay, robs his farm, and consequently robs himself.

A remark of Mr. JOHN JOHNSTON's, made in the Co. GENT. a few years since, I have not forgotten. He says—"I have always had money enough in my pocket, when I have fattened stock for the market"—that is, by purchasing stock judiciously, and feeding out his hay, grain, &c. judiciously, he has realized a good profit and a good large pile of manure, which, as the Hon. JOSIAH QUINCY, Jr., has said, (in one of the Legislative Ag. meetings in Boston,) is the most profitable crop he raises.

Manure of stables, thrown out to the weather, is covered with snow frequently; therefore the pile is a layer of snow and a layer of manure, and not only one layer of each, but a great many; and when the pile thaws in the spring, a large portion of the soluble part of the manure is carried away by the water. A temporary shed over the manure heap in the above case, would be good economy. If stock have a good bed of straw, the manure heap is increased in quantity and quality, especially if it is to be plowed in for the corn crop in the spring. A quantity of muck or loam, to the depth of one foot or more, should be placed under the stable floor, to absorb the urine, unless a tank is used to catch it. I have found by experience that muck or loam, lying under a stable for one year, is a very rich manure for grass lands.

Much has been written of late, in regard to composting night soil. My privy is over a vault 6 by 8 feet and 6 feet deep, laid with stone and brick, and plastered with cement—therefore it is water tight. Muck or loam is added to the night soil, from time to time, with plaster, which thoroughly absorbs the ammonia. Dead rats, mice, chicken heads, legs, &c., cats, woodchucks, hair, bristles, old rags, hen manure, urine, and various other things, are thrown into this vault to make up the compost. Ashes or lime mixed with it, would release the ammonia and thereby injure the quality.

By the above process, I make four cart loads of 30 bushels each, of an exceedingly rich manure, far richer than any barn-yard manure I can make. It should be carted into a heap in the spring and shoveled over two or three times before used.

Long or green manure, at the rate of fifteen cart loads, spread broadcast on a clay loam, or heavy loam soil, with 100 lbs. plaster plowed in, will give a good crop of corn if about a pint of the above compost is put in each hill, and it is kept clean by cultivator and hoe, provided the elements are favorable. Thoroughly decomposed manure is much better for light loam or sandy soils.

Deerfield, Mass.

JAMES CHILDS.

A Cheap Corn Sheller.

Not feeling able to buy a corn sheller, and not willing to borrow, I have hit upon a method of shelling corn, which, though simple, was entirely new to me. One bushel can easily be shelled with it in fifteen minutes by a single person. As it is simple, convenient, and cheap, I venture a description.

Take a common barrel with only one head, which should be strong; bore the head with a three quarter augur making the holes as near together as possible and not weaken the head; pour into the barrel half a bushel of ears, and set it upon a half bushel; then take an axe and commence pounding the ears. The corn will drop through the holes and leave the cobs in the barrel. A. S. R. Kirtland, O.

Vitality of Eggs.

It is a matter of some consequence to determine how much cold, eggs will endure without losing their vitality. About a month since, I had a few eggs of Seabright Bantam fowls, which I was keeping for the purpose of setting a hen for early chickens. These eggs were kept in a place where water froze so hard in a small vessel that it was somewhat difficult to break it, and I was apprehensive that the eggs would be so injured by the cold that they would not produce chickens. I tried them, however, and the result is a fine, healthy brood of chickens.

G. B. H.

[For the Country Gentleman and Cultivator.]
How to Steam and Feed Cut Straw.

I have remarked a number of correspondences in your most valuable Co. GENT., respecting the feeding of cut straw to stock; but those who recommend it, as well as feed, do not give their system of feeding, which is the most desirable information that is wanted. As I have had some experience in feeding cut straw to my stock, as well as having tried several ways to feed it with economy, which is a great point of farming, and my being being a great admirer of fat, slick, clean and profitable cattle, I will give you the way I coax my stock to eat the cut straw, which is of wheat, oats, buckwheat and pea straw.

I have a small building adjoining the stable, with a ground floor, and a door that opens just opposite the cattle in said building. I have an agricultural furnace, the boiler of which holds about forty-five gallons water, into which I put say about thirty-five gallons, to leave room for boiling, into which I put one oil-cake, about 8 pounds weight, the oil-cake being well bruised and stirred into the boiling water. Every care must be taken in attending the boiler after putting in the oil-cake, otherwise it will all be lost, the oil-cake causing the water to boil up—keep stirring it for about five minutes, when it will be ready to pour over the cut straw, which I have in a box close to the boiler—said box made of inch boards, tight, and five feet long by three wide, and two feet high, to hold the thirty-five gallons. I have fifteen bushels of cut straw in the box—the contents are poured over the whole, and well stirred up; then covered with a tight cover, and allowed to remain until the following day. It is then given to the cattle in quantities, according to the age and size.

Part of my stock are Short-Horns. The quantity I give them, and the hay I feed, is as follows:—three buckets of the straw is given to each cow in the morning at 10 o'clock, and half a gallon of dry ground oats at 12 o'clock—half a bushel of raw cut turnips at 4 o'clock, p. m.—one bucket of cut straw, and at night eight to ten pounds of wheat or oat straw uncut. My object in giving the cattle straw at night, is to add variety to their feed, as cattle cannot have too much variety, and especially where we have to feed them seven months before they can live on grass. At 8 o'clock p. m. my man cleans out all the mangers of the straw that remains after the cattle have eaten, and picked out the best—about half remains, which is used for their bedding, and I generally keep one foot and a half to two feet of straw under them, and remove their manure only once a week. Several times a day fresh straw is placed over what is wet and soiled, which is trodden down and compressed, and the urine all absorbed by the straw. It makes the best of manure and no waste, and the cattle keep clean. I use slacked lime, sprinkled over the floor every morning, which is a most excellent addition to the manure, and gives a good dry floor, as it absorbs all the damp and wet.

I wish to mention that the cows giving milk, are allowed one bucket of lukewarm water with one quart of ground oats scalded in same extra.

My stock on said food, look well; they have fine sleek coats, and are in good thriving condition. They are carded or curried every morning. I don't allow one particle of dirt on them in any shape. Water is kept constantly before them—stables kept clean, and they are regularly fed. One man's time is completely taken up in boiling food, cleaning, feeding, and caring for fourteen head of cattle, seven horses, and three calves. I forgot to mention that one half pint of salt is put in the water along with the oil cake.

Farmers who wish to have all their cattle very fat, can enrich the straw by adding provender and more oil cake.

I have not fed any hay as yet to my stock. I am keeping it for spring feed, as I find in this part, cattle don't feed so well in March and April as in the winter months, and require the best food to be given them last, when they will come out to grass with profit to the owner.

With reference to steaming food, about which I see inquiries—scalding the straw as I do, and covering over

with a cover, it is in every way steamed and as well cooked as can be required. The buckets I mentioned are the common American, holding about four gallons.

Any further inquiries by your correspondents I will be happy to answer.

A furnace of the dimensions of the one I use, can cook food for twenty-five head of cattle.

All the chaff of the farm I scald also in the same way, only I mix it with boiled turnips three times a week, salting the turnips.

CHARLES HUGHES.

Aspen Grove, Three Rivers, C. E.

Reducing Bones to Powder.

A great obstacle to the use of bones as a fertilizer arises from the difficulty of reducing them to a condition in which they are readily applied and rendered immediately available to the plant. Bone mills are costly and require considerable power, and oil of vitriol or other chemicals are not always accessible to the farmer. The following process necessitates neither of these alternatives, and calls for no money outlay, except it be for labor. It is said to have been first communicated to the agricultural public of England by Mr. PUSEY, and Prof. S. W. JOHNSON of the Yale Analytical Laboratory, has published it here, for the benefit of our farmers who do not quite know how to use their bones:—

The process depends upon the fact that bones consist, to the amount of one-third their weight, of cartilage or animal matter, which, under the influence of warmth or moisture, readily decomposes (ferments or decays) and loses its texture, so that the bones fall to dust. From the closeness and solidity of the bony structure, decay is excited and maintained with some difficulty. A single bone or a heap of bones, never decay alone, but dry and harden on exposure. If, however, bones in quantity be brought into close contact with some easily fermentable, moist substance, but little time elapses before a rapid decay sets in.

So, too, if fresh crushed bones are mixed with sand soil, or any powdery matter that fills up the spaces between the fragments of the bone and makes the heap compact, and then are moistened with pure water, the same result takes place in warm weather, though more slowly. The practical process may be as follows:—The bones, if whole, should be broken up as far as convenient by a single sledge hammer and made into alternate layers of sand, loam, saw-dust, leached ashes, coal ashes, or swamp muck, using just enough of any one of these materials to fill compactly the cavities among the bones, but hardly more. Begin with a thick layer of earth or muck, and as the pile is raised, pour on stale urine or dung-heap liquor enough to moisten the whole mass thoroughly, and finally cover a foot thick with soil or muck.

In warm weather the decomposition goes on at once, and in from two to six or more weeks the bones will have entirely or nearly disappeared. If the fermentation should spend itself without reducing the bones sufficiently, the heap may be overhauled and built up again, moistening with liquid manure and covering as before. By thrusting a pole or bar into the heap, the progress of decomposition may be traced from the heat and odor evolved. Should the heap become heated to the surface, so that the ammonia escapes, as may be judged by the smell, it may be covered still more thickly with earth or muck. The larger the heap the finer the bones, and the more stale urine or dung-liquor they have been made to absorb, the more rapid and complete will be the disintegration. In these heaps, horse dung or other manure may replace the ashes, etc.; but earth or muck should be used to cover the heap.

This bone compost contains the phosphates of lime in a finely divided state, and the nitrogen of the cartilage which has mostly passed into ammonia or nitrates, is retained perfectly by the absorbent earth or muck. When carefully prepared, this manure is adapted to be delivered from a drill-machine with seeds, and, according to English farmers, fully replaces in nearly every case the superphosphate made by the help of oil of vitriol.

[For the Cultivator and Country Gentleman.]

BUTTER-DAIRYING IN CHENANGO CO.

L. H. TUCKER, Esq.—While visiting our section of the State some few weeks since, you expressed a desire to learn what the best dairies yielded per cow, in amount of proceeds and number of pounds. As this has now become one of the most noted dairy regions of the State, I take the liberty to enclose you a statement of the proceeds of the farm and dairy of Mr. ALBERT YALE, one of the members of our "Farmers' Club," (the Bainbridge Farmers-Club,) before which we had the great pleasure of hearing you lecture. It is drawn up hurriedly, from notes taken at the time he made the communication to the Club, and from a conversation with him after. Mr. Yale is a young man, but one of the most thorough and energetic farmers we have. His farm is upland, lying in the town of Guilford, about five miles from the Susquehanna river, upon west side, sloping gradually to the south and east, and also towards the river. The wood on part was maple and beech, part pine and chestnut. He thinks the latter preferable for grass land.

His statements and experiments, as furnished to our Club, upon different subjects, have been very interesting, and the same may be said of others of the members—all have endeavored to make each social gathering entertaining, and at the same time profitable to themselves. With but one exception, we have met every Saturday evening, with a full house, since Saturday the 24th of Nov., at which time we organized anew for the winter of 1861.

If Mr. Shattuck, whose dairy statement you published Feb. 7th in Co. GENT., will not take it amiss, I would say that the difference in the prices per pound received by Mr. Shattuck and Mr. Yale, is accounted for as follows: Mr. Shattuck's butter was sold upon a contract made the spring previous, and Mr. Yale sold his butter at the low market prices of last fall. I would say, however, that such dairies as these furnish a yield above the average. I wish you could furnish dairy statements from other portions of the State. J. J. Bainbridge, N. Y., Feb. 10.

STATEMENT OF THE PROCEEDS OF THE DAIRY OF ALBERT YALE OF GUILFORD, CHENANGO CO., N. Y., FOR 1860.

My farm contains 64 acres—56 acres under improvement—balance woodland. I planted one acre of potatoes, one acre of corn, raised 500 bush. oats, kept three horses, ten sheep, and ten cows. That the pasture was good, one may judge from the amount of butter yielded by the cows. I have hay enough now in my barns to bring them to grass again in fine condition. I winter but two of the horses—sold one last fall. On my pastures and meadows I have sown this season 3,000 lbs. plaster and 25 bushels lime. I slack my own lime. In the process of slacking, I mix plaster with it. This mixture I sow upon my wet land, and find a marked difference from the result of either sown separate. I sow plaster alone upon the drier portions of my farm.

I feed my cows all the hay they will eat from commencement of "foddering." Cut my hay very early. My haying is nearly finished by the time the average of farmers commence. I commence feeding meal the 1st day of February, one pint a day each, and increase it up to two quarts per cow. After calving, I increase the feed to two quarts per cow twice a day. I do not turn to grass until it is good feed, and in changing them from hay and grain, turn out to pasture the first day about an hour only—the next day leave them a little longer, and so on for about two weeks, all the time decreasing the amount of meal.

I salt my cows in wet weather in summer, every morning, about one pint to the ten cows. In dry weather, salt three times a week. In this matter of salting, I have experimented a good deal, and am satisfied if I vary from the above practice, I am a loser to a certain amount.

During the winter I keep my cows in the stables most of the time. The ages of my cows are as follows:—Five

are six years old, three are five years old, and two are four years old.

Amount of butter sold, 2,300 lbs., at 23 cts. per lb.....	\$529.00
Do. do. used in family, 250 lbs., at 23 cts. per lb.....	57.50
Four deacon skins, sold at 75 cts. each.....	3.00
Two hogs, weight 6-6 lbs., at 7 cts.....	42.72
Six calves, fed on skimmed milk, sold for.....	31.00

\$663.22

Deduct purchase of two shoats in spring.....	\$9.00
Do. corn, fed hogs, 10 bushels, at 75 cts. per bushel.....	7.50

16.50

\$652.72

Making the average to each cow, \$65.27—number of lbs. to each cow, 255.

My cows commenced dropping their calves Feb. 28th—the last calved April 20th, and were milked until about the 1st of Jan. following. The kind of meal used is rye and oats, equal parts, ground together. For two years I tried corn (without cob) ground with oats. Like the rye and oats better. It takes the cows in spring about two weeks longer to get in same flesh as upon the rye and oats. I raise no rye on my farm, but exchanged oats for rye, &c.

ALBERT YALE.

[For the Country Gentleman and Cultivator.]

PROFITS OF POULTRY KEEPING.

I send you herewith a statement of an experiment with fowls made to the Committee of our Agricultural Society in Sept. last, to which was awarded the premium. Although the results were not in any way "alarming," yet they compare favorably with similar statements in point, and show conclusively that fowls can be made quite profitable stock.

STATEMENT.—Account commenced Jan. 1, 1860, and continued six months. Stock, 30 hens and two crows; the Bolton Grey blood predominating with strains of Black Spanish, Plymouth Rock, Chittagong, Dominique and China, (I find mixed breeds do better than pure bloods.)

They commenced laying soon after the 1st of the month. The largest yield of eggs in any one month was in Feb., 40 doz. I see no reason to change my opinion as set forth in my statement of two years ago, that it is more profitable at present prices to raise eggs than chickens, therefore I set only enough hens to make sure of a choice lot of young fowls, as I consider a hen in her prime at 2 years, and decreasing in value, for laying purposes, after that. I send to market all but one or two of the best crows, and all of the inferior pullets, during July and August, finding it more profitable to work them off then than to feed till fall.

You will observe that the quantity of grain consumed is large for the number of fowls. This is owing to their being confined almost entirely to a house of 10 by 20 feet, and a yard of 8 by 12 feet. I am safe in saying I should have used one-eighth less grain, and had 30 dozen more eggs, if the fowls had had a free run.

I have underestimated the manure, which I find quite a valuable article. My method is to spread under the roosts every two or three weeks, a few shovelfuls of loam, or better still, chip dirt, and what with the scratching of the fowls and an occasional working over with the hoe, I have in the spring a homogeneous mass of excellent fertilizing material.

The plan of feeding I have finally adopted is to keep corn by them all the time, giving, for variety, a feed once or twice a week of oats, or potatoes boiled and mashed with meal. For animal food, which they must have, I keep them supplied with scraps chopped fine, or fresh meat, and furnish them with lime in pounded oystershells.

For fattening I know of nothing better than good sound corn, with milk, either sweet or sour, to drink.

Dr.

To 11½ bushels of corn at 92c.....	\$10.58
2 do. oats at 55c.....	1.10
1½ do. meal at 88c.....	1.10
Meat, \$1.20; oystershells and pepper, 20c.....	1.40
10 gallons sour milk at 4c.....	.40
1 hen bought, to replace one lost.....	.50

\$15.08

Cr.

By 152½ dozen Eggs sold, averaging 18¼c.....	\$27.89
20 do. used and set av. 18¼c.....	3.65
55 chickens on hand worth, average, 15c.....	8.25
6 months' manure.....	3.00

\$42.79

15.08

Profit of 30 hens for 6 months..... \$27.71

Framingham, Mass.

F. C. BROWN.

THE EVERLASTINGS.

(HELICHRYSUM.)

The name "Everlasting," is applied to this class of plants because the flowers retain their form and color for a long time in a dried state.

The small yellow one so much used in France and the European countries for wreaths to be placed on graves and tombstones, is the *H. orientale* or *Gnaphalium orientale*.

Several shrubby and perennial species are cultivated in green-houses, and are exceedingly showy interesting plants when well grown, and in full bloom.

Our object at the present time, however, is to speak more particularly of the new large flowered annual varieties of the *H. bracteatum* and *macranthum*. These are yet, (Nov. 8, 1860,) in full bloom in the garden, bearing very slight traces of injury from several sharp frosts, and a long period of cold wet weather. The plants attain the height of three to four feet, and are stout and branching. The variety *Monstrosum*, here represented, is one of the best; the flowers, which are produced in great profusion, are about an inch and a half in diameter, and are white, yellow, red and yellow, orange, rose color, &c., &c.

Little need be said about the cultivation, as they are as easily grown and managed as a China Aster. Either sow in a hot bed with a mild bottom heat, about the 1st of April, and then transplant into the border in May, or sow in the open border at the usual time for planting hardy annuals.

These "Everlastings" are natives of Australia.



MANURE THE BEST CROP.

At a discussion by the Mass. Legislative Ag. Society, on "what kinds of farming are most profitable in the State?" the Hon. Josiah Quincy, Jr., of Norfolk Co., said (as reported in the N. E. Farmer,) that "the best crop he had found was manure. He raised 350 tons of hay, kept 80 cows, and followed Dana's method of mixing his manure with swamp muck, and by this means made 100 cords per month. The cotton seed and other meals which he feeds to his cows, make the manure exceedingly rich. He considered manure the most advantageous crop a farmer could raise, and it should be his first care. He believed in top-dressing, and spoke of McDougal's disinfectant which he was trying, and which he had found to nearly destroy the smell in his stables. If this proved successful in what was claimed for it, it would be of immense advantage in top-dressing, by holding the ammonia in the manure for the rain to disperse."

Dr. Loring of Salem, referring to this remark, said that

"to a certain extent the most profitable crop was manure, but this depended somewhat on the manner in which it was applied after you have got it. He made his compost as Mr. Quincy did, and top-dressed his land, which was a heavy clayey soil. He thought that, if a farmer stocked his farm to its utmost capacity, while he thought that he was working for his cattle, his cattle were, in fact, working for him. The speaker said he principally devoted his farm to stock-raising and fattening stock. He also kept hogs, but he kept them on the starvation principle, using them for their work, which was valuable. He endeavored to carry on his farm at as little expense as possible; he did not cut his hay for feed, because his cattle had the machinery for cutting it themselves, and he further said that he thought that in the cut and wet state it furnished no additional nutriment." In this last remark, Dr. L. is far from agreeing with Mr. Tyler of Somerville, who said that "from his experience, he was satisfied the saving in cutting hay would more than pay the expense incurred, for fattening cattle," and Mr. Quincy entirely coincided with him.

American Arbor Vitæ Hedge.

The annexed engraving is an accurate drawing of a section of a screen, six years from setting, in the grounds of H. E. HOOKER & Co., of Rochester, New-York, now about four and a half feet high, perfectly smooth and dense, and an object of admiration to every one. On the same grounds is another hedge about three feet high, set out three years ago last spring, in length about 800 feet, in which only three plants were lost of the entire planting, and even *these* have never been replaced.



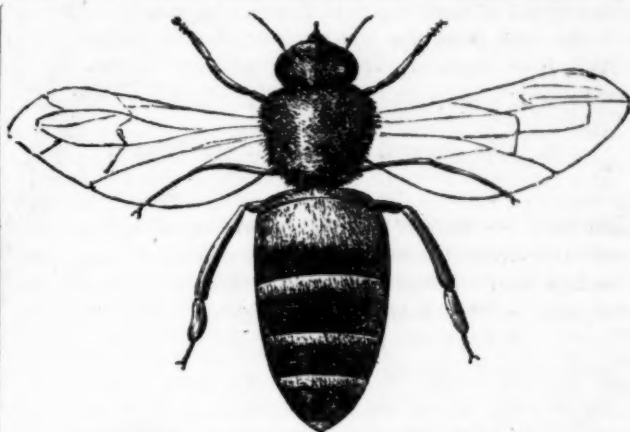
FARM MILL.

Our correspondent, S. EDWARDS TODD, who has thoroughly tested this mill the past winter, writes that he is more than well pleased with it—that it is, in fact, just the mill for the farmer. Mr. T. says:

"I have just tested this mill; and here is the result. My power is a two-horse railway, and has been in active service for eleven years; and with the platform elevated nineteen and a half inches—just as it is for thrashing and sawing wood—I ground ten bushels per hour, of oats and buckwheat, fine enough for horse-feed, and seven bushels per hour, as fine as is desirable for cattle or pigs. Attaching the sieve, I ground a half bushel of Indian corn into fine meal, for family use, in five minutes. Last season I tested another mill exactly like this, which had a bolt attached for flour, and made as complete wheat flour as we are accustomed to get at flouring mills. A bolt can be attached to any of them.

"I then took the mill to a neighbor's barn, who has one of R. H. Pease's Excelsior two-horse railway powers, which runs like a top. His horses will weigh about ten hundred pounds each. With an elevation of 19 inches, and 356 revolutions per minute, he ground of oats and Indian corn, at the rate of ten bushels per hour. On his power, two horses will perform about as much as four usually do, on a sweep-power."

GREAT CROP OF SPRING WHEAT.—A Montreal correspondent of the Genesee Farmer, says that a crop of five spring wheat sown on the 29th of last April, produced 49 bushels per acre.



[For the Country Gentleman and Cultivator.]
THE ITALIAN BEE.

The most desirable way to obtain a knowledge of any thing in animated nature, is by actual observation. This is not always practicable, but by faithful drawings the deficiency can, in a measure, be supplied. I have endeavored to do this in the above drawing of an Italian worker, much enlarged to show more clearly its peculiarities. The two upper abdominal rings are yellow in about the proportion given in the drawing, the unshaded part representing the yellow. Their wings are more deeply fringed with hair than the common bee. "The drones differ from the workers in having the upper half of their abdominal rings black, and the lower half an ochry yellow, thus causing the abdomen, when viewed from above, to appear annulated. The queen differs from the common kind chiefly in the greater brightness and brilliancy of her colors." The workers, drones and queens are a little larger than the common variety. They are milder in disposition. This is not a new fangled notion to advance their sale, for it was mentioned by high authority 1800 years ago. Their superior industry and quickness of motion was also observed at that early period. It has been widely circulated by advertisement in this country, that "*they will not sting*," which is false.

I will endeavor to sum up briefly: Greater industry—greater endurance—resist cold better. These qualities are most observable during the buckwheat harvest, and in autumn when fogs, chilly mornings, and high winds seriously interfere with the labors of the common bee. More inclined to rob, and their individual strength being greater, they generally succeed in attacking a common hive.

Italian queens are more prolific. The graceful shape and beautiful color of the worker causes almost every one on first sight to take an interest in them. It is thought by high authority, Dr. J. P. Kirtland, that they will "prove a valuable acquisition to localities of high latitude, and will be peculiarly adapted to the climate of Washington Territory, Oregon, and the mountainous regions of California." E. P.

••• A Bouquet of beautiful Flowers beautifully arranged, from the Greenhouses of our friend JOHN WILSON, is acknowledged with thanks.

[For the Country Gentleman and Cultivator.]

Pork-Raising and Fattening in Burlington County, N. J.

Some of the farmers of a part of this county, have become somewhat noted for their enterprise, skill and success in raising, fattening and killing crops of very large and very fat hogs; and they have succeeded with a certainty of attaining such an average weight on their whole crop, at the usual age of 21 to 22 months, that, years ago, would have been thought rather fabulous.

Last year I collected and sent for publication, the account of weights of a few crops of pork, which elicited numerous inquiries from various parts of the United States, and to which I respectively responded.

This present winter (1860-1,) I have taken occasion to visit several of the farmers in this county, who raise, feed and kill such hogs, for the purpose of seeing again for myself, their stock, and learning directly from them, their mode of treatment, and see if there was any further information than I already possessed.

I. The Breed or Stock of Hogs.

In a general way there is no distinctive name or breed by which to designate the kinds in use. These farmers have for years selected, crossed, and recrossed, and almost every year crossed with their neighbors far and near, and with any kind of stock easily accessible to them, which each one, in his own estimation, thinks will best promote by that cross an improvement in his stock of hogs—bearing in mind, proper proportions, fattening propensities, and early maturity. Those noted for extra large hogs, consider extra size of especial importance, along with as many of the before mentioned qualities as can be embodied together. Consequently, they are of all colors, (excepting full black,) including white, sandy, red, brown, spotted, and mixed of all kinds.

Most feeders deem it more profitable and less troublesome, to keep a few more hogs in number, and not of so extra large a size, and not feed so much so early, and depend more upon late pasture and early coarse feed, and not keep them so late in the winter, when they require more care and attention after becoming so excessively fat and heavy. Others, including those who devote the most attention to this subject, and who are the most successful, as indeed they ought to be—and of this class the number is steadily increasing—prefer a larger kind of hogs, that will at 21 to 22 months old, well and carefully fed, average from 500 to 600 lbs. They cross through, and with an eye to increasing the size as much as it can be done without losing other valuable traits. Indeed it is difficult to breed hogs of from 600 to 700 lbs., nett dressed at that age, without their being more or less coarse and boney; and it is freely admitted that a hog with a large coarse bone will break down, after long and heavy feeding, sooner than one of good proportions and medium sized bone, though the latter will generally be fatter in proportion to his size.

II. Raising and Feeding.

The stock hogs are wintered over, with just sufficient feed of the coarsest and cheapest kind, generally unground, to keep them in good stock condition, they being provided with a dry and comfortable sleeping place, well littered, until the spring pasture is sufficiently grown, when the barrows and spayed sows are turned into a field of red clover, and with water, and have no other dependence until after harvest in July. The sows for pigs, being selected out from the others, likewise have clover pasture, and are provided with sheltered and separate places for their pigs, which are supplied with litter in advance, so as to become broken up, so that the young pigs can creep over it, which they cannot do over fresh long straw, and are thus liable to perish or become destroyed.

From the middle of April to 1st of May, is the most preferable time for the young pigs, on account of the condition of the pasture for the sows, and the cold weather being over. As a matter of course, the sows have to be

assisted by a swill or slop of bran or ground rye, together with the waste of the house and dairy, as may be needful, and of this the little pigs will soon partake—when they are fed in an adjoining place, where they can creep and the old ones cannot get, until after harvest—when they are weaned, and the sows put with the other old hogs, and all of the old ones run in the stubble, which “starts” them. As soon as that begins to fail, they receive an assistance by way of a swill of bran or other coarse feed—first once, then twice a day. As corn becomes old enough, a little of it is cut up, and they will chew it stalks and all. Then a little early corn, if the feeder has any, together with any other coarse feed.

Next comes the offal of the crop of corn, (the worst of it first,) which is fed out to them from scaffolds out in those fields designed for next year's planting with corn, or from a farm wagon placed out there, and the place changed to equalize the manure over the field.

Next comes the good sound corn, fed on the cob, and they are placed in their yards and pens, and kept there. As the corn hardens, feed them once a day with corn meal—of old corn if on hand, if not, then shell a portion and grind it; but take especial care and pains that the grain which is then damp, does not heat and must in the bags before grinding—also that the meal be immediately spread out to cool and dry, or that will certainly damage, so early in the season. As they show a preference for the meal over the corn on the cob, feed them twice a day with meal, and finally three times a day, or all the time with meal, which is made moist or wet with water, a plentiful supply of which must be furnished them besides.

After they have been penned up, give them frequently free access to slacked lime or burnt oyster shells, wood-ashes, and charcoal, as they desire it. Some keep a pile of slacked lime by them.

They must have their pens kept well cleaned out, and a good, dry, roomy and comfortable shelter from the weather, and when very fat, well littered. Those who are most successful in fattening the heaviest hogs, have their houses open on the warm side, with shutters on the other sides, so as to ventilate it to suit the changes of temperature on warm days when the hogs are very fat, as no animal will take on flesh rapidly while it is in an uncomfortable state of bodily feeling, whether caused by great cold or great heat, or cold tempestuous storms.

Some farmers, and perhaps most or all of those who succeed in raising the heaviest hogs, as the season advances, scald the corn meal for them. In an adjoining place, a boiler is placed, and suitable receptacles near by for the meal. A large hogshead sawed in two at the bung, will make two tubs that will answer very well to scald the meal in. After the morning feeding, a new batch is prepared for noon; and after that is fed out, one for evening, and then another is prepared for morning, by boiling water being poured on to the meal and well stirred, and so much of it that after soaking, it will be just so thick and so thin that it can be scooped out by a pail and carried to the troughs, the hogs being also freely supplied with cold water.

I saw at one place, three tubs, in which, after the morning feeding is over, the three batches are made in immediate succession, and left to stand until the regular feeding three times a day. Hogs will eat and relish a mess slightly fermented, but they will instantly reject corn and meal that is the least *musty*, no animal being more fastidious in its taste, after its own way, than a high fed well fattened hog, and the person having them in charge, has need to be a judicious man, and very careful and attentive, to feed them just what they will eat with a good appetite without cloying or over-feeding them, noting that they will eat more in clear cold weather, than in warm muggy weather.

When kept very late and made very fat, frequently some of them have to be assisted in getting up to eat, and sometimes a few of the coarse heavy boned ones, may break down, or become lame and unable to walk. These have to be waited on where they are, or killed then, as the owner prefers.

These hogs, before killing, become so quiet, that the care-taker will walk all about among them as they lay down, without their minding him, and receive his assistance in raising up very kindly.

I do not know any feeder who systematically boils the feed for his hogs. Instances of its being so done, I knew years ago; but it was not continued, the additional labor and cost of fuel being too great. Now to return to

The Pigs just Weaned.

They do best to have an outlet on pasture, but sometimes have to be kept up to keep them out of mischief, and of course require more feeding to keep them in a good growing condition. Indeed, some persons, to avoid the damage by their little noses, keep them up in their pens before weaning, and turn the sows out to pasture, and let them in to the pigs three or four times a day. This plan is essential in some places, where the little pigs cannot be fenced against—as it will not do to put rings into their noses while sucking, before heavy feeding begins. The pigs are assorted in the fall—a suitable number of the best sows are selected for breeders—then the best of the others for wintering over—and the surplus, be that more or less, is then fattened to pig pork, out of which the domestic supply is taken.

The male pig is kept by himself until needed, after which he adds to the lot of barrows. Some prefer keeping him in his pen, and turning one in at a time to him, and out again immediately. Others turn him out with the sows, as in former times.

Weights of Hogs.

Having, as briefly as I could, given a detailed statement as repeatedly requested by letter to do, and trusting it may prove of advantage to some raisers and feeders of hogs in other parts, I will proceed to give the weights of a few crops of hogs, which were raised, fed and killed by the persons named below, in Jan. and Feb., 1861, being generally about 21 to 22 months old. They were sold to agents (residing among us) of New-York cutting and packing houses, and might have been seen piled up on pier No. 1, North river, New-York, along with a great quantity besides, of various sizes, but mostly of excellent quality, as they were unloaded there by the Camden & Amboy Transportation Company—early in the mornings of the 3d, 4th and 5th days of the week, from the middle of January to the middle of February—several hundred hogs being sometimes piled up there at once, awaiting to be assorted and delivered to the respective cutting houses, which also are well worthy of a visit by those who take an interest in such things.

We also have fed this winter, in this county, a few single hogs of enormously heavy weights, some of which are not yet slaughtered.

I.—23 by Isaac Harrison, near Jacobstown—639, 627, 606, 566, 580, 578, 576, 573, 563, 565, 553, 551, 549, 541, 540, 533, 514, 512, 500, 500, 491, 491, 478, 467, 466, 454, 449, 442. Seven of these averaged over 600 pounds nett, dressed. Twenty-three of them average over 550 pounds. The whole 23 hogs average 533½ lbs.—total 14,938 pounds.

II.—33 by Thomas Hood, near Shelltown—602, 594, 592, 590, 588, 584, 583, 576, 570, 569, 566, 562, 562, 556, 553, 553, 529, 525, 518, 516, 512, 508, 507, 506, 503, 503, 502, 500, 477, 460, 448, 439, 438. Twenty-six of these average over 550 pounds. The whole 33 average 532 pounds. Total 17,589 pounds.

III.—23 by Elwood Haines, near Jacksonville. This lot is of the Chester County (Pa.) breed, and are pure white, and very neat—620, 587, 567, 559, 550, 547, 536, 531, 530, 528, 523, 510, 505, 487, 477, 475, 475, 475, 472, 462, 457, 446, 432. Eleven of these average over 550 pounds. The whole 23 average 511 pounds. Total 11,753 pounds.

IV.—Charles G. Warner, near Shelltown—19 hogs—average 480 lbs.

V.—Thomas Rogers, near Shelltown—19 hogs—average 473 pounds.

VI.—George Bullock, near Jacobstown—28 hogs—average 473 lbs. (This crop was killed a few weeks earlier.)

VII.—Alexander Thomson and Joseph Johnson, both of Georgetown, each fed, and killed December, 1860, two pigs of the same litter—the former, at 7 months and 15 days old, weighed 286 and 336 pounds, and the latter fourteen days afterwards, being 8 months less 1 day old, weighed 311 and 348 pounds, nett, dressed.

VIII.—25 by Isaiah Gooldy, near Mount Holly—626, 614, 608, 606, 598, 592, 572, 552, 548, 548, 542, 536, 530, 528, 528, 510, 508, 508, 488, 484, 482, 474, 472. Of these 7 average over 600 pounds—22 average over 550, and the whole 25 average about 542 pounds—total, 13,548. He also killed a few weeks previous 25 pigs, weighed 5,703 pounds, averaging 228 pounds.

IX.—Two hogs were killed in Burlington about the same time, weighing 716 and 660 pounds—besides other individual ones of large size.

WATSON NEWBOLD.

Near Columbus, N. J., Feb. 27, 1861.

In addition to the above, we give the following from a letter from Mr. JOSHUA PINE of Gloucester Co., N. J.

X.—51 by Charles Clark of Pile's Grove, Salem County . . . 614, 598, 588, 576, 572, 572, 568, 566, 552, 552, 548, 540, 532, 516, 516, 516, 512, 512, 512, 504, 504, 504, 500, 496, 496, 493, 492, 492, 484, 484, 484, 480, 476, 456, 456, 432, 448, 444, 440, 432, 420, 412, 412, 404, 396—total, 26,010 pounds—average 510 pounds.

XI.—Two hogs belonging to Mr. T. Sharp of Salem, weighed 752 and 688 pounds. Another belonging to Mr. J. Lawson, weighed 739 lbs. Four belonging to Mr. E. Davis of Bridgton, weighed 752, 660, 650, 582.

[For the Country Gentleman and Cultivator.]

Experiment in Growing Potatoes.

LUTHER TUCKER & SON—As actual experiment is so much more satisfactory than mere theory on any subject, particularly on that of the farmer's crops, I have thought best to give you the result of my potato crop the past season. I planted upon a rather light, yellow sandy loam, much inclined to sand, (following a crop of buckwheat,) with a very light coat of barnyard manure, (the number of loads I cannot give, but few and small,) plowed in.

For the sake of easy and ready reference, I give it in a table—first, showing the number of rods of ground planted, and the number of hills upon it, three feet apart both ways—second, the number of bushels raised, (omitting the smaller fractions,) the number of hills per bushel, and the rate per acre.

The potatoes were cut, then wet and dried off in quicklime, and two pieces planted in a hill. They were hoed but once, and owing to the wet season, the grass had grown so luxuriantly as to form quite a stiff sod, making it very tedious and expensive digging.

	Hills planted.	Rods of ground.	Bushels raised.	Hills per bushel.	Rate per acre.
Jenny Lind,.....	121	4	7½	16	302
Garnet Chili,.....	121	4	7	17	285
Canada Red,.....	1,573	52	87½	18	269
Early Pink-Eye,.....	2,783	92	159	20	243
Mountain Pink-Eye,.....	121	4	6	20	242
Peach Blow,.....	2,057	68	89½	23	210
Black Diamond,.....	121	4	5	24	202
Adams' Red,.....	1,815	60	67	27	179
Prince Albert,.....	242	8	7	34	142
Blue Pink-Eye,.....	2,683	88	74	36	135
New-Hartford,.....	242	8	5	45	107

I do not offer the latter part of the table as being a large crop, but more to show the result of the whole experiment.

FULTON.

[For the Country Gentleman and Cultivator.]

INDIAN CORN

While I am writing, I believe I will give my plan of planting corn. After plowing the land, run off the corn rows with a "shovel plow," and drill the corn. Then with a "bull tongue," or narrow shovel, run on each side, making a "list" on the corn. In about ten or twelve days—that is, about the time the corn is sprouting—take a board 14 inches long and 8 or 10 wide; bore a hole in it, and screw it on to the shovel plow stock, and run it on the top of the "list." It levels the list down beautifully, knocks off the clods, breaks the crust, gives the young grass and weeds, which had sprouted, a back set, and in a few days the young corn comes up through this clean mellow bed, ready to grow right off. It is the best working the corn can have. And as a hand, with a good horse, can scrape 8 or 10 acres a day, a farmer can get his whole crop worked over in a few days, and thus get the start of his work—no small matter in so busy a season.

My main crop has been tobacco for a good many years, and at some future time I may give you the most approved plan of managing that very troublesome but profitable crop. The year before last, my crop averaged me one hundred and twenty dollars to the acre, on new ground without manure. The land cost four dollars per acre. Last year I put the same land in tobacco, without manure, and had just as good a crop as the year before. It is now in wheat, and if the season is a good one, will make a large yield. So much for some of our North Carolina land.

Greensboro, N. C.

A. C. C.

[For the Country Gentleman and Cultivator.]

Important Experiment in Cheese-Making.

The dairy season is about commencing again, and I desire the privilege of a corner in your paper, to give the result of extended experiments in cheese-making. In the first place I shall take it for granted that the whole process up to salting, is well understood, for it is of *salting* that I wish to speak in this article.

In June, 1859, I finished a few cheeses after the following manner: When my curd was scalded, (I practice thorough scalding,) I threw into the vat about four quarts of salt—sometimes only three for a cheese of 50 to 60 pounds, stirring thoroughly. Those which went into the hoop before being well cooled off, acted badly; but when I took time and means to cool sufficiently, the cheeses were very fine. On the whole, I did not like the process and abandoned it.

In 1860, I commenced again, changing the programme as follows: After scalding I drew off the whey, leaving just enough to float the curd, and began to cool off, hurrying the process by pumping in cold water and changing often. Then, to a curd of say 60 pounds, a little more or less, I threw in sometimes three and sometimes four quarts of salt, and stirred till well cooled—then drew off the salted whey, and threw it on the compost heap—put the curd to press, and pressed rapidly and thoroughly. And now for the result. I lost from my whey tub about three pails of whey and some salt. I gained in this, that my dripping tub under the press, never had a particle of cream rise upon it, and in having a cheese that gave me no trouble in curing, and that when sent to market sold for the very highest price, and called forth the unqualified approbation of dealers as being perfect in all respects—fine flavored, very solid, (not porous,) and very fat.

And now let me talk to the experience of dairymen. In the old fashioned way of breaking up and salting a curd, more or less bruising of the curd to break the lumps, in order to get the salt evenly distributed, is necessary, and when put to press the white whey runs off freely—in other words the cream runs off, and of course with it the richness of the cheese, and more or less of its weight, and if the curd is very dry you are liable to get your cheese too high salted, and if not, the reverse.

My experiments clearly prove that a curd salted in whey will retain no more salt than it needs, and that as every particle comes in contact with the brine through the operation of stirring, no bruising is necessary. Whether this is the philosophy of it or not, I am not chemist enough to determine, but I do know that if there is no discharge of white whey, or cream, it is retained in the cheese, adding to it both richness and weight as a remuneration for the extra salt and the wasted whey.

I have written some and talked much about cheese-making, and I flatter myself that the cheese from my neighborhood stands as well in market as that from any other section of the State; and with this I hand you a circular which I distributed among dairymen some years since, and before I had experimented in cheese-making. It was generally approved, (setting aside its irony, which was intended to hit off particular cases,) and needs but little alteration, except I would heartily advise the above method of salting as a decided improvement.

I would also recommend instead of the old fashioned tin curd cutter, the dairy knife manufactured by D. G. Young at Cedarville, Herkimer Co. I consider this knife a valuable improvement. I use and would also recommend a cheese vat with heater attached, manufactured by W. Ralph at Holland Patent, Oneida Co. With this apparatus I make a cheese with a half bushel basket of hard wood chips, and am sorry to find that neither of these gentlemen advertise their wares in your columns.

I send you the circular, and you may wish to make some extracts from it. D. Oneida Co., N. Y.

[For the Country Gentleman and Cultivator.]

AGRICULTURE IN NOVA SCOTIA.

EDS. CO. GENT.—As your correspondents, in different parts of the Union, occasionally express the obligations they feel themselves under for the information derived from your valuable journals, I thought it would be gratifying to you to receive a similar expression from some of us in Nova Scotia. It affords me then much pleasure to assure you that *THE CULTIVATOR* is highly appreciated by all who have taken it during the eight years in which I have interested myself in circulating it among my friends and neighbors in this township. Falling in with it accidentally in the spring of 1853, I was favorably impressed with its typographical neatness, the beauty and finish of its wood cuts, and the variety of useful information on all subjects of garden, farm, and domestic economy. Superadded to all these excellencies was its marvelous cheapness; it was a specimen of an article not often met with, in which *goodness and cheapness* are combined. I made up my mind to take it, as it was just the thing I wanted, and also determined to use my endeavors to obtain subscribers for it in my neighborhood. Since then, I have in different years succeeded in gaining from 25 to 40 subscribers a year—nothing like what the circulation of such a magazine ought to be—but even those few copies have done a good work among those who took them, in leading them to adopt improvements in drainage, tillage, care of animals, &c.

The first piece of drainage ever attempted in this county was undertaken by a gentleman whom I had induced (rather hesitatingly on his part,) to subscribe for *THE CULTIVATOR*. On my recommending the paper to him, he told me that the systems of farming advocated in agricultural papers, in a word, "*book farming*," would not suit this country, and do what we would, we could not grow grain in this part of the province on account of our frequent heavy sea fogs in summer. I replied, that though I was no farmer myself, yet I had ventured to form an opinion on the subject from reading and observation, and this opinion was, "that it was not the fog *above* ground, but the fog *below* the ground that prevented wheat from growing and ripening, and that if the land was drained enough to carry off the surplus stagnant water from the subsoil, all grains would grow well and ripen, and that wheat in particular, required a dry and warm soil for its roots. Our conversation ended by his handing me the price of subscription, and the expression of his determination to try what draining would do. He subsequently told me that he experimented on a field near his house, which had been always too wet to grow anything thrivingly on it. On this piece he put a number of French drains, filling them up within 18 or 20 inches of the surface with stones. Many of his neighbors laughed at him for what they thought would be a waste of time, labor, and money, but he accomplished his object, and next year seeded his drained land with wheat. As the grain grew it was the admiration of every one who has an eye to observe such things, and when the time of harvest came, he had the satisfaction and pleasure of taking something over forty bushels of good grain, plump, and full weight to the acre—the field contained about two acres. Every year since then, the same land has yielded heavy crops of hay, and the grass grows directly over the drains much higher and better than on other portions of the field.

I will at present only add, that not only in this county, but throughout the Province, agricultural matters are receiving an attention greater than has been devoted to them for many years past. Besides *THE CULTIVATOR* and *CO. GENT.*, other agricultural papers are taken pretty largely, and the ancient prejudices against book-farming are rapidly fading away. Improved stock of all kinds have been imported from Scotland, England and the United States, by the Province and by Societies. Farmers are building underground receptacles to their barns for preserving their manure, and everything betokens a disposition to adopt the improvements of modern science.

J. W. H. R.

Yarmouth, N. S.

[For the Country Gentleman and Cultivator.]

EXPERIMENTS IN FEEDING SWINE.

MESSRS. TUCKER—I undertook several experiments the past year. Many will never be completed I fear; but here is one made to find how many head of hogs were necessary to eat up a crop of corn. Four hogs, weighing 560 lbs., were put up on the 8th Sept.—fed all they could eat of good corn and clean water, three times a day *regularly*—pumpkins and potatoes raw occasionally, not often—salt, ashes and charcoal generally once a week. They were kept in a pen 10 ft. by 12 ft., boarded, half covered and made warm—the other, kept clear for feeding. They consumed just 60 bushels (1½ bush. of ears to the bush.)—were killed Jan 21st, weighing nett 712 lbs., to which add one-fifth for the gross weight, makes 854—560=294 lbs. increase, or 4.90 lbs. to the bushel of corn.

They consumed 37 bush. from Sept. 8 to Nov. 10—from then till Jan. 21, 23 bushels. Had they been killed the middle of Nov., there would have been more profit. I may safely say that they did the worst of any hogs that I have had anything to do with, and they were well cared for. They were put in a small pen all boarded, as my partner believed that the best way, whilst I held that a boarded pen to sleep and feed on, together with a small lot, was the best, and our neighbor's results prove it so. His were fed in that manner, though he did not measure his corn. Every one acknowledged that he had a great advantage. We purchased them from him—one of his so like one of ours we could scarcely distinguish them. When we took it from his pen, it weighed, fatted, nearly 250 lbs., ours about 175 lbs. This and another black one, increased very little after beginning of Nov. The other two, white, having a good share of Suffolk blood in them, say one-fourth, increased all the time, and they were younger and smaller.

I am persuaded that to fatten well in small pens, they should be either *full grown*, or have a *large proportion* of Suffolk or other good blood in them. Can give another proof of this good blood vs. common. Though I do not believe in penning up shoats, was compelled to pen up five Suffolk grades and six large stock shoats. The latter were the finest, averaging 53 lbs., not varying more than 7 lbs. The five shoats were the remainder of a lot of 20, and therefore the worst, four of them being sows, yet they have done the best. One that weighed 48 lbs., now weighs 127 lbs. The six have gained about 20 to 25 lbs., and look bad, hair dirty and rough. E. S. ATKINSON.

Bloomington, Ill., Feb. 20.

[For the Country Gentleman and Cultivator.]

Disease of Cows after Calving.

MESSRS. EDITORS—In COUNTRY GENTLEMAN, vol. 15, p. 412, T. W. Bennum, Clark Co., Iowa, wishes information in regard to some cows that have died in that vicinity, that dropped their calves and appeared to be doing well; and in about 48 hours appeared to lose the use of themselves, and died soon after.

As no one, I believe, has answered, and the season is arriving again when this disease most commonly happens—in warm weather when we have good pastures—I give my ideas. This disease is properly called the milk fever, or dropping after calving. This complaint seldom or ever happens to cows that are poor, but to cows that are in high condition, and cows removed from low keeping to high feeding, good milkers, full of blood and milk. The cause is this—when she parts with the calf, if the milk does not come freely, it is thrown back on the system, and she loses the use of herself and drops down, and if in warm weather is almost certain to die. If the cow is in good order and full of milk, it is almost a certain remedy to commence milking, say two or three weeks before she

calves. If the milk comes freely all the better; anyhow, milk regularly, as if she had calved. Get the milk to come freely, and little or no danger. This is prevention, which in this case, is worth two pounds of cure.

When prevention is neglected, this disease sometimes shows itself in a short time after calving, but most commonly from two to three days. The common signs of this disorder are, an inability to stand, stretching out the legs, violent convulsions, cold extremities, mouth open, tongue out at one side, &c.

Treatment.—When she is laid down, the fore-parts should be considerably elevated in order to favor evacuations. It will be needless to offer any food, for she cannot eat while in this state. She should be attended, night and day, as she will have restless fits, will often rise upon her knees in attempting to get upon her legs, and fall again in a position not proper to lie in. The person who attends to her must be careful to keep her in a right posture, as before described, with the head and shoulders much higher than the other parts.

The bowels must be opened. Give one pound of Glauber's or Epsom salts, dissolved in three pints of warm water; when dissolved, add a tablespoonful of ginger in powder, and a teacupful of molasses, and when milk-warm give to the cow. If the above does not physic freely in ten or twelve hours, repeat once in twelve hours with half the above, till it operates. A SUBSCRIBER.

[For the Country Gentleman and Cultivator.]

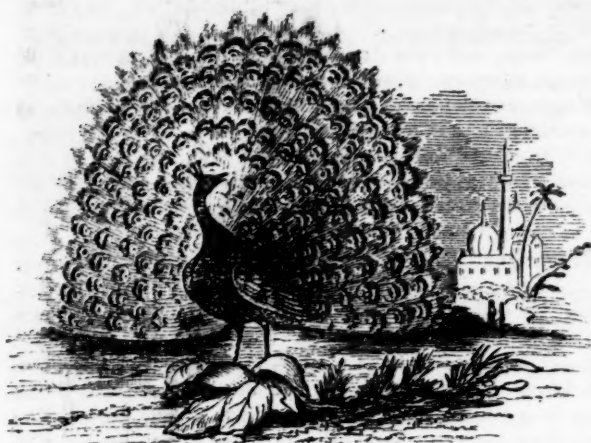
Agricultural Exhibitions and Grumblers.

MESSRS. EDITORS—An unjust, an ungenerous, and injudicious attack is made in your paper upon a most useful, well-meaning and generally amiable class. Bad enough had it come from an enemy. Still worse an attack from a friend of agricultural societies upon their best counselors and most steady supporters. What would agricultural societies—what would their exhibitions be without grumblers? What would a railroad train be without brakes, a balloon without sand bags, a steam engine without a governor, a newspaper without correspondents? Grumblers indeed! Paradise of grumblers! more likely paradise of horse jockeys. Easy enough to call names, but grumblers that grumble with good reason, and systematically and impressively, and, if need be, in chorus, are as useful as watch dogs, as policemen, even as officers of agricultural societies.

No wrong, Messrs. Editors, has ever been redressed, no evil remedied, no improvement carried out, no malpractice unearthed, no abuse corrected, without the aid of grumbling, without a grumbler to begin the work, and a choir of grumblers to finish it. So, Messrs. Editors, do not let any one abuse grumblers; and oh! brother farmers, please grumble; if need be, *growl*. You have always been too quiet, you have let your agricultural societies too much alone; come to their meetings, and do not whisper nor talk compliments. If you find anything to grumble at, grumble *loud*. But *do not stay at home to growl*. Do not let things manage themselves, and then grumble because they don't manage themselves right. Show that you take an interest, if only by grumbling, not about little personal slights, or errors of judgment, or accidental omissions, except to prevent their repetition, but reasonably, considerably, and when some good may come of it.

Farmers, you have in your agricultural societies the means of making your interests known, your influence felt, your voice heard, your cause represented, if only you will take an interest in your societies. Strengthen their hands, make them your representatives, and in them represent yourselves, meet in friendly council, commit your interests to good agents, and then support those agents. You have long been content to have your affairs managed by the village lawyer, and tavern keeper, and "country merchant," and little politician. Take care of your own affairs, and at the right time. Better a man who comes to the annual meeting and grumbles, than one who stays at home. Better a grumbler than one who takes no interest, says

A GRUMBLER.



[For the Country Gentleman and Cultivator.]
On Raising the Peacock.

EDS. CO. GENT.—In the 7th No. of Co. GENT., vol. 16, I notice an article under the above caption, by Alfred Baylies, taken from the New-England Farmer, in which he states some things entirely at variance with my experience. In the first place he says, "The hen lays her eggs early in June, so by the first or second week in July she is off with her young, which she is pretty sure to bring off and bring up." Now this is all true, with the exception of "bringing up." If he had said she is pretty sure *not* to bring them up, it would agree with my experience. In the second place he says, "He (the peacock) will not be confined." In answer to this I would beg leave to say that we have had from eight to ten confined in a small poultry-yard at Springside for the last six or eight years, where they seem perfectly contented in confinement, and very anxious to return when they happen to be out.

In regard to his propensity for killing his young, not only of his kind, but the destruction of other poultry, accounts are very contradictory. It is believed, however, that the peacock becomes more cruel as he advances in life, although they often vary in their disposition. It cannot be denied that they are tyrannical, pugnacious and persevering until they are masters of the poultry-yard. In their attacks two or three often join, and by their united action come off victorious. Let a strange bird of any kind be put into the yard, whether turkey or game cock, or goose or duck, or any animal, they are sure to attack them; sometimes, however, they meet with their match, as in the case of the introduction of a sandhill crane into the yard about two years ago. His high and towering head, long and powerful bill, was more than they could compete with, and they gave it up, after several battles as a hopeless case. It is but a short time since we discovered one of them engaged in fighting with a male Gazelle, but, as might have been expected, came off second best.

Mr. Baylies further says, "They are easily raised, require little or no care," &c. Now this is entirely at variance with our experience, as we have always found them extremely tender, delicate, and very difficult to rear; showing all that constitutional tendency which bespeak their tropical origin; but after they are six or eight months old, they become enured to our northern climate, and live and roost among the common poultry.

The newly hatched pea-chicks are interesting little creatures, pretty in appearance, very tame and confident. They may be made to sit upon the hand to pick flies from the window. But to be successful with them at that age, they require feeding quite often with many nice things, such as ant's eggs, curd of milk, eggs boiled hard, with crumbs of bread, chopped fine, and should be prepared fresh every day. Like the young Guinea fowl, the demands of nature for the growth of bone, muscle, and particularly of feathers, are so great that no subsequent supply of food can make up for a fast of a few hours only. The feathers still grow and drain the sources of vitality, still faster than they can be supplied, till the young birds faint and expire for want of fullness.

The chicks should be housed in wet weather, as damp or cold is fatal to them; so is intense sunshine, and hence they should not be turned out under a scorching sun; but every day when dry and warm, should be allowed to divert themselves on the smooth turf. The mother should be cooped for

two or three weeks, to prevent her from rambling too far from home.

Peacocks are accused, and not without some degree of truth however, of being great depredators in the garden, when allowed to roam, where they are sad pests if once they find their way thither. They will destroy a large patch of strawberries as fast as they ripen, if not kept off. For this there is no help. They will steal off at first dawn of day to the work of plunder. If a vineyard is at hand, the greenness and sourness of the grapes, which caused the fox to refrain, would be but a weak argument with them.

Exclusive of the consideration of ornament to the rural mansion, peacocks are useful for the destruction of all kinds of reptiles and insects; also to keep watch, as they will roost when at liberty, on the most elevated places, on the highest trees, or tops of chimneys, where they will sound the alarm should any midnight marauders be around. C. N. BEMENT.

ESTIMATING HAY IN BULK.

MESSRS. EDITORS—Some inquiries have been made in the COUNTRY GENTLEMAN about weighing and measuring hay. I shall sell one hundred tons of hay this winter, and as it is all weighed, can give you the result of as much as I have sold to the present time.

Mow No. 1, 21 by 21 feet square, 13 feet in depth, required 460 solid feet to weigh 2,000 lbs. This hay was timothy, not very coarse; cut while in blossom, and well mowed away by two men.

Mow No. 2, 10 by 20 feet square, 5½ feet in depth, the hay the same quality as No. 1, required 650 solid feet to weigh 2000 pounds.

Mow No. 3, 11 by 24 feet square, 14 feet in depth. Timothy hay, part of it rather too ripe when cut; required 500 solid feet to weigh 2,000 pounds.

My advice to persons buying hay, is to rely on their own judgment. Ascertain if the hay was cut at the proper time and mowed away properly. Take into account the size and depth of the mow, for the larger the size, and greater the depth, the less number of feet will be required to weigh a ton. For instance, it would require a greater number of feet to weigh a ton from a mow 8 feet deep, than from a mow 16 feet deep—also coarse hay will require a greater number of feet to weigh a ton, than fine hay.

My experience is, it will require 500 solid feet of Timothy hay, cut in season and mowed away as it should be, to weigh a ton, taken from the center of a mow 12 by 24 feet square and 10 feet in depth. I have more hay to weigh, and will give you the result if you wish.

Duchess Co., N. Y.

J. D. KERLEY.

Recipe for Curing Beef.

Below I give a recipe for curing beef, that I do not recollect of seeing in print, which I received from a friend, and have tried and like it very much. For 100 pounds of beef:

6 quarts of salt, (or 10 lbs.)
4 pounds of sugar.
4 ounces of saleratus.
2 ounces of saltpetre.

Pulverize the saltpetre, and mix the whole together; put it on as you pack the beef. Pack the beef close, and put a stone on to keep it down. G. W. S. Trenton, N. Y.

Keeping Cabbage in Winter.

A correspondent of the Ohio Cultivator says the following is the best way, according to his experience, to keep cabbage fresh and hardy for use: Cut the heads out with two or three courses of outside leaves upon them, fold close to the head, pack them in barrels, set them in a cellar, if the cellar is dry, keep outside leaves on top of the cabbage, to exclude enough air to prevent wilting. Reader, try it, and you will give up the old way of trenching your cabbage out of doors.

There is an important addition that should be made to the above mentioned mode, which will render it an excellent one. Pack the cabbage heads in the barrel (or dry goods box is more convenient,) with nice damp moss, such as nurserymen use. It will preserve the cabbage just sufficiently damp and fresh all winter. Beets, carrots, celery, &c., may be kept finely in this way.—[EDS. CO. GENT.]

Inquiries and Answers.

MILLET.—I have been looking over the back numbers of *THE CULTIVATOR*, for information in reference to the cultivation of millet, and have failed (as I have not long been a subscriber for your valuable paper,) to find any thing about it. As farmers in this vicinity do not grow it, I infer that they consider it not worth particular attention. Will you please give us your views, as to its comparative value as fodder, and especially as green fodder for cows. *P. North Brandon, Ct.* [There is a difference of opinion on this subject, and we would therefore esteem it a favor if any of our readers who have cultivated it for some time and extent, would give the results of their experience—stating cost, amount of crop, value, &c., as accurately as may be.]

SEED DRILLS—JAPANESE WHEAT.—Can you inform me, through *THE CULTIVATOR*, where I can get a clover seed roller, sowing from 2 to 12 quarts or more per acre evenly, and at what price? (1.) Does the Kuhns & Haines Patent Grain Drill sow as much wheat per acre when driving fast as it does by slow driving, or by leaning to one side as much as when leaning to the other? (2.) Do you know anything about the Japanese wheat? It is asserted in an advertisement that it will yield as much as 400 bushels per acre, weighing 56 lbs. per bushel, and to be worth as much as corn to feed to stock—will produce whiter flour than wheat. (3.) *H. KELLER, Wrightsville, Penn.* [1. Bickford & Huffman of Macedon, N. Y., manufacture a clover seed sower, to be used with or without their grain drill, but we do not know the cost, to be used as proposed. 2. We are not acquainted with the drill mentioned, but all the best drills sow alike in all positions, Bickford & Huffman's among the number. 3. The wheat advertised at a high price as Japanese wheat, is reported to be some old valueless sort.]

ORCHARD HOUSES.—A short chapter in *THE CULTIVATOR*, on Orchard Houses, would be very acceptable to many, giving the size of pots and the size of the trees, (pears for instance,) when brought to a bearing state. I have a fine collection of pears, some twenty varieties, in bearing, but the trees last season were severely handled by the "blight." I shall probably lose a dozen trees, and many more badly injured. *G. W. C.* [We would advise our correspondent to procure *Rivers' Orchard House*, the best treatise that has been written on the subject, and which is sent by mail, by C. M. Saxton, Barker & Co., the publishers, New-York, on receipt of 40 cents. It has various illustrations, plans, and estimates of structures, &c. It must be remembered, however, that in England, where this work was written, Orchard Houses are more valuable than where trees grow freely, and bear and ripen fine crops in the open air, as in this country. For those who have abundant means, an orchard house well and thoroughly managed, is a beautiful ornament; but one-tenth of the labor and expense required by one, would keep a large fruit garden in a high state of cultivation, clear off the insects, and apply every means for successful growth.]

OZIER WILLOW.—As I am deeply interested in the welfare of Iowa, and Iowa particularly interested in materials for fencing, you would confer a great favor on your subscribers by informing them whether the Ozier Willow will stand this climate—whether it is the same as the Black English Willow, which is about being introduced here at such enormous rates. Yours truly for twenty years. *IOWA CITY.* [The Ozier Willow in most repute in Europe does not succeed here. The best, for both basket work and for hedges, is the *Salix purpurea*. It is advertised in this paper, by D. L. HALSEY, at \$3 per 1,000. The Black English Willow we do not know. If it is the *Salix nigra*, we should think it of little value; it grows abundantly along some portions of the banks of the Ohio river. There are some 200 species of willow, and many varieties, and many of the species are difficult to distinguish from each other, unless side by side.]

CHINA TEA SPRING WHEAT.—W. S. of Bucks Co., Pa., (p. 112,) asks some of your correspondents to name the best kind of spring wheat. In answer I would say that the China Tea variety has been grown around here for several years with very good success, and is superior, in many respects, to any other variety. It is a late variety, and for that reason it generally escapes the midge. It grows to a greater height than the Club, and is therefore easy to harvest. The Hon. A. B. DICKINSON of Steuben Co., speaks of this variety thus—"The best variety of spring wheat that I have ever seen is the variety known in this section as the China Tea. There are many names for the same wheat. It is necessary to give a description of the variety, that there should be no mistake. It is a white chaff,

bearded, and grows (on good land) very late; the head is very long, kernels not very close together, berry large, a good variety to mix with the Canada or Milwaukee Club, either of which grows six or eight inches shorter. When sown together they ripen at the same time, and yield 4 or 5 bushels more to the acre mixed than when sown separately." *J. L. JOHNSON, Palermo, Oswego Co., N. Y.*

SPRING WHEAT.—The variety preferred in this county, St. Lawrence, N. Y., and I believe in Upper Canada, is the Fife or Scotch. It has taken the place of the Club and the Black Sea, and very few grow the China, which is more profitable than the Fife wheat for the miller, but not for the farmer. The Fife, or as more commonly called, the Scotch wheat, is a strong growing handsome grain, and makes a handsomer, better colored sample than the Club. *H. L. T.*

YORKSHIRE PIGS.—In answer to an inquiry of J. M. Morpeth, C. W., as to the most profitable breed of hogs, I beg leave to say that some time since I saw at Mr. James Brodie's, Maple Grove, Jefferson Co., a Yorkshire hog killed—one of his imported blood. It is a breed he has had some time, and tells me as far as maturing early, great fecundity, smallness of bone, and small quantity of food necessary, he thinks they are pre-eminent. They are very large, deep, long, handsome, and plenty of covering to protect them from all weathers. The hog he killed was a last March pig, eleven months old, and dressed 483 pounds. He also told me that some time ago he weighed and then put up to feed, a boar and sow, he fed them 20½ quarts of skim milk, and one pound ship stuff per day, and at the end of seven days the boar had gained 20 pounds, and the sow 24. *JOHN CLARK, Jeff. Co.*

VOLUMES OF THE CULTIVATOR.—Will you please answer through the Co. GENT. how many volumes of the *THE CULTIVATOR* you have on hand for sale that were published from the commencement, up to the 1858, and at what price. *J. C. H. Weston, N. J.* [We have the eight volumes for the years 1838-9-40-41-2-3-4-5; and those from 1853 to the present time. We will supply these by Express at 75 cents per vol., or by mail, postpaid, at \$1 per vol.]

SWEENEY.—Will you be kind enough to give me a remedy for sweeney in the horse, where the shoulder is wasted down to the bone? *W. H. Crawford Co., Mo.* [The best remedy, doubtless, is rest, or very moderate usage, with what is termed a Dutch or strap collar. We have seen several remedies tried, but so far as we could judge, the animal, where a recovery took place, would have got well as soon without them. In the case mentioned, an entire cure could not probably be effected.]

SWEENEY.—I have a very fine young horse which has the sweeney in one of his shoulders. I have not worked him for two months. The hollow you could lay your hand in. Should you know anything would fill up the cavity and cure, be pleased to insert it in your next Co. GENT., and much oblige *J. S. New Market, Va.* [In answer to this, we give the following, from another correspondent:]

SWEENEY.—In your issue of Feb. 28th, I see an inquiry signed "W. H.," asking "for a remedy for sweeney in the horse." "Sweeney" is caused by injuries received in the limb affected. It may be a sprain or bruise in any part of the limb or foot, which causes the animal not to use that limb as much as the others, and "sweeney" comes from the want of the natural use of the limb. If "W. H." will find the cause which prevents his horse from using that limb freely and remove it, the horse's shoulder will fill up the same as before he was injured. If "W. H." had a finger taken off, or a wrist sprained, or was to receive any injury that would cause him to lose the use of an arm for a time, he would find upon examination that his shoulder had fell away, but as soon as he recovered the full use of his arm, his shoulder would fill up. So it is with the horse. *Y. M. Fayette, Pa.*

DISEASE AMONG SHEEP.—Can any of your numerous readers give me the name and remedy for a disease among my sheep—a disease which I do not understand, and cannot account for, as it has so far attacked the best, fattest, and apparently the thriftiest of the flock. I do not discover any premonitory symptoms—when first discovered, they stand perfectly quiet, with head down and ears drooping—when made to move, stagger along and perhaps fall—without the ability to get up again unless assisted—when down lie perfectly quiet. Do not appear to suffer unless disturbed, when they make it manifest by moans—will not eat, and live from one to four days after being taken. I have lost five, all within two weeks, and have the sixth patient on hand now, with as fair a chance to die as any of the others had. I do not know as I can describe this disease any better than I have done. If any of your readers can give me any information on the

subject, or suggest any reasonable experiments, I will try them, and as our legislators say, report progress. J. Amsterdam, N. Y.

PERSIAN YELLOW ROSES.—Please inform me through THE CULTIVATOR, of the best mode of propagating the Persian Yellow Rose. All my layers failed last summer. Mrs. E. JEFFREY. Randolph Co., Ill. [Bud it on the Manetti stock at the surface of the ground, or graft it below the surface. The Persian Yellow is a feeble grower in most soils, but this stock imparts vigor.]

SICK OX.—Say to A. A. Cole, p. 140, that if I had his ox, I would try a rowel in the swelling, and would keep it in some time. It will do no harm if it does not benefit him. I am almost as much in favor of this treatment, as the correspondent that recommended sawing off the horn for ails in the ox, &c. A. M.

WORMS IN HOGS.—Seeing in your Co. GENT. an inquiry for a remedy for worms in hogs, I would recommend the following: One teaspoonful of copperas, dissolved in warm water, and given once every alternate day for a week. This was recommended to me where I was farming, and my hogs were troubled in the same way. It acted like a charm, and my hogs took on flesh very rapidly after the application. Aurora.

JESSE BRADY.

REMEDY FOR CALVES SUCKING COWS.—Sometime since an inquiry was made in the Co. GENT. as to a method of preventing a cow from sucking herself, a calf from sucking a cow, or calves from sucking one another—I do not remember which. A sufficient remedy for all or each of these habits, is to apply to the teats, ears, or whatever part is sucked, a strong mixture of lard and cayenne pepper. One or two applications will be found effectual. G. W. DURANT. Rensselaerville.

WORMS IN SWINE.—You can inform "A Reader," that if he will mix wood ashes liberally with the food of his pigs and shoats, with the addition of a handful of salt to each shoat, he will soon remove the worms from them, and will not hurt them if worms are not the trouble with them. I have had considerable experience with hogs, and always give them from pigs, more or less ashes in their food, or in a dry state, and they will readily eat them in either case, and a sure cure for worms. Charcoal given to hogs that are fattening, as often as once a week, is readily eaten by them, and improves the quality of the pork, and renders the animal more easily fattened. HENRY JORDAN. Kennebunk, Maine.

CHEESE PRESS.—I wish to know what is the best and cheapest cheese press, and where to be obtained? Also would like to know what is considered the best standard work, upon the dairy, among eastern cheese makers. SUBSCRIBER. East Hamburg, N. Y. [The best work is Flint's Treatise on Milch Cows and Dairy Farming, which contains figures and descriptions of several forms of cheese press, each having its peculiar advantages, and from which our correspondent may select. Inquiries for a good cheese press, however, are quite frequent, and we should be glad to hear from cheese makers on the subject.]

ANSWERS TO QUESTIONS OF J. T. H., Co. GENT., JAN. 24, p. 64.—1. On Framing Braces. The rule for framing braces is 5 inches to the foot—that is, if your run is 2 feet each way. Then your brace will be 2 feet 10 inches long, and if the run is 3 feet each way, then the brace will be 4 feet 3 inches long—or, in other words, every foot you add to the run adds 5 inches to the length of the brace.—2. What is the rule for finding the number of square feet in saw logs? To this question I will give the number of square feet in different sized logs. In a log 12 feet long and 24 inches in diameter, there is 300 square feet. In a log 15 feet long, 26 inches in diameter, there is 453 square feet; and in a log 12 feet long, and 12 inches in diameter, there is 48 square feet.—3. Which pays the best, to sell your wood at \$2 per cord, or burn it into coal at \$6 per 100 bushels? Now, according to the best of my knowledge and information, it will pay best to sell your wood at \$2 per cord. I will give my reasons. In the first place it will take 2½ cords of 4 foot wood to make 100 bushels of coal, which is \$5. 2d. The loading and unloading of the wood at the pit, would cost about the same labor that it would to load and unload it in market, to say nothing of the difference in distance. Besides all this, you have your coal-pit to set up and watch while it is burning, and when this is done, you must load and draw it to market, all for \$1 on the 100 bushels.—Preparation of Night Soil. In regard to this, I would recommend mixing with night soil equal parts of lime and sawdust—spread and plow in.—5. Would cement, placed around fence posts, prevent their decaying? This is altogether a new idea to me. Still my impression is that it would not prevent them from decaying.—6. Does

not manure pay better on wheat ground than on corn? In my opinion there is no way of fitting a piece of ground for spring wheat better than to draw out your coarse barn-yard manure, and plant with corn, and hoe well. The corn will derive considerable benefit from the manure; but at the time of sowing your wheat the next spring, the manure will be well rotted, consequently the wheat crop will receive the most benefit from the manure.—7. Is it best to give colts a little oats the first winter? I will answer this question by saying I should prefer a little oat meal and carrots. P. D.

PUMPS.—I have a well that is 17 feet deep. I want to get a pump in it, and would like to know what kind would be the best, and what the price would be. I have understood that there is a pump that will draw the water whenever a man walks on the board—that is, the weight pumps up the water. W. P. Coveville, Pa. [A common well made cast-iron pump, will doubtless be the best thing, costing only a few dollars, and sold at all large hardware establishments. Where exposed to freezing, there is a contrivance for letting off the water in cold weather. There is nothing gained by "walking on the board," it is complex and useless, hard to keep long in order, and a man's hands are usually quite as convenient to work a pump as his legs.]

Please to inform me through THE CULTIVATOR, how to candy the peel of lemon, so that it can be used in cooking instead of citron, and oblige A CONSTANT READER.

"BONE WEN."—I have an ox that has got a bone wen on the side of his cheek. Can any of the readers of the Co. GENT. inform me whether it can be cured, and how? E. T.

BAD HABIT IN A HORSE.—I have a horse, six years old, that has the habit, when in harness and standing hitched, of tossing his head up and down. Can you tell how to prevent and cure the habit? H. J. R. Peoria, Ill.

REMOVING OLD PUTTY.—G. H. asks how to remove old putty. The question troubled me in boyhood, as I had to refit an old clock-glass. I was about to try nitric acid, when I remembered that heat softens putty, and soon accomplished the task. Heat a piece of iron of suitable size and shape—apply it to the putty, and let the knife follow as fast as the oily compound softens. S. A. New-Jersey.

HEDGES FOR SALT MARSHES.—Would you inform me through THE CULTIVATOR, of any shrub or plant that would grow and form a hedge on a piece of land which was once salt marsh, but has been dyked for about fifteen years? I have tried willows, but they will not grow. I suppose it is owing to the salt contained in the ground. The soil is a black muck, and produces good crops of hay, potatoes, and roots of any description. If you will give me the above information you will greatly oblige me. G. W. K. Yarmouth, Nova Scotia. [We have had no experience on this subject—will some of our readers who may possess the desired information, please furnish it.]

SOWING PLASTER.—I wish to sow plaster on meadows this spring—how will it do to sow it in March, upon the frozen ground, or even upon a light snow? J. L. R. [Early sowing is generally regarded best—the plaster dissolving and entering the soil, acting at once upon the young plants. We have known very striking results, however, from sowing when the clover had grown a few inches. We would not recommend sowing on frozen ground, as the early rains might wash off the plaster before it was dissolved or could penetrate the earth. Sow as soon as the soil is thawed and settled.]

SUBSOILING.—Please inquire through "THE CULTIVATOR" of some of your practical farmers, what is their experience in subsoiling, and also whether once is enough for the same field, or is it better to repeat the operation during the succeeding year or year after? J. L. [Additional facts to the already accumulated evidence in favor of subsoiling from any of our correspondents, especially if calculated to throw any new light on the subject, would be acceptable. The operation is sometimes repeated, across the first, to deepen and render it more uniform and perfect. The frequency of its repetition must depend much on the nature of the soil—if wet and adhesive, subsoiling soon loses its efficacy, and in fact it is hardly worth while to perform it on such soils. A lighter, or a well drained subsoil, will feel its effects for many years, the advantages gradually passing away, and needing repetition. Hard, heavy, hard-pan subsoils, are most benefited, if the land has been well drained.]

ROOT-GRAFTING.—In your issue of Feb. 14, I see it stated that "cuttings will succeed well by inserting them in a stout portion of root." Will you be kind enough to give us a full description of the operation—the depth of planting, and at what season? Y. M. Fayette, Pa. [Our correspondent will find

a full description, with copious illustrations, of the process of root-grafting, in the Register for 1860, or 2d volume of Rural Affairs, p. 316, as applied to the propagation of the apple, nearly the only fruit that succeeds well, thus treated, under ordinary circumstances.]

SENDING GRAFTS BY MAIL.—(A. M.) Procure a piece of oil-silk, (such as is used for lining straw hats;) let it be an inch or two longer than the grafts; wrap the grafts within, and the oil cloth snugly about them, bringing up the ends, and make the whole moisture-tight, by passing a small thread around 40 or 50 times from end to end. Wrap a little paper about them outside of the oil cloth always, to prevent bruising, and enclose them in a letter. They will go safely 1000 miles.

OLD ORCHARDS.—I want to inquire the best manner to resuscitate an old apple orchard. J. L. Philadelphia, Pa. [The main reliance will be to render the soil rich. Top-dress it with manure, and with some lime and ashes. The owner must use judgment as to the quantity, as soils and circumstances vary greatly. Cultivating shallow, will be useful, although surface mellowing is not nearly so important with deep rooted old trees as with young or newly set trees. Pruning is important, but far less so than enriching. Cut out dead and crowded limbs, and leave a well formed even head, avoiding the removal of large branches so far as practicable.]

TRANSPORTATION OF EGGS.—Will eggs which have been carried some distance by railroad hatch? P. T. M. Becket, Mass. [Yes, if properly packed and carefully handled.]

MANURING CORN.—A correspondent at Falmouth, Va., (H. B. H.) inquires the best way of manuring his corn with manure which has been accumulating during winter, and with guano and plaster, so as to get the greatest possible yield. If the manure is not too long and fibrous, it may be at once spread on the field—if too coarse, it should be allowed to rot sufficiently to become fine. If litter has been largely used with the manure as it has been deposited, this may afford nearly enough material for admixture; but if the manure is in large large proportion, add loam or turf, to retain volatile parts. Spread the manure, if short enough, on the land, which will be better, if previously plowed, so that it may intermix freely. Spread the manure, then harrow it repeatedly, to break it fine and mix it with the surface. Then turn it in, to a moderate depth,—deeper, as the soil is lighter,—and harrow, prepare and plant the corn. Drop or scatter a spoonful of guano in each hill, with a thin stratum of soil between guano and seed, above or below; or if the guano is mixed with several times its bulk of loam, muck or plaster, this care will not be needed. If well cultivated, a good crop will be the result. The cow manure may be applied to the potato ground in the young orchards, in a similar manner.

[For the Country Gentleman and Cultivator.]

MORE RECIPES FROM "NANCY."

"Wood's" allusion to my recipe for lemon pie, in the Co. GENT. of Dec. 20, 1860, compels me to acknowledge that her criticism may have been correct as to the tendency of the pie to produce dyspepsia in New-York. It does not have that effect in the family of this deponent. The recipe for "lemon pie," sent herewith, affords as palatable a dessert as the other, and one, too, which will not give dyspepsia anywhere. This, with the other recipes, is at your service. NANCY.

Keokuk, Iowa.

Lemon Pie.

For one pie, take two good sized, fresh lemons; grate the rind and squeeze out the juice, and mix with it sugar to make it sufficiently sweet. Line a deep pie plate with pastry, pour in some of the mixture, and cover it with pie crust rolled very thin (as thin as possible;) then some of the mixture and crust again, till all the mixture is used.

Cover the whole with a thick crust, and bake in a slow oven, that the juice may not cook out.

Sponge Cake.

Eleven eggs, the weight of eleven in sugar, and the weight of six in flour, and the rind (grated) and juice of one lemon.

Plum Pudding.

One teacup of brown sugar or molasses, half a teacup of butter, melted and stirred into the sugar, one teaspoonful of cinnamon, one teacup of milk, sweet or sour, one heaping teaspoonful of soda in the milk, two teaspoonfuls of cream of tartar stirred into the milk, and when foaming mix with the sugar and butter. One pint of seeded raisins, and flour enough to make it as stiff as pound cake. Put in a buttered tin, and steam it two and a half hours.

[For the Country Gentleman and Cultivator.]

BLACK WARTS ON PLUM TREES.

MESSRS. EDITORS.—In a January number of the COUNTRY GENTLEMAN, we noticed an inquiry in relation to black warts on plum trees. It is about thirty years since we set out a number of plum trees in our garden. They grew well a number of years, but about the time they commenced bearing, the black curl took possession of them, and completely ruined them. For ten or twelve years we did not set out any more; but being in a gentleman's garden, a part of which was occupied with young plum trees, some of which had been grafted, and he offering to sell a dozen, we concluded to try our luck again in raising that very desirable fruit, the plum.

We took twelve, and set them in our garden and around our buildings. They grew finely, but in three or four years the black wart made its appearance. For two or three years we cut them off; but a new set appeared each year, and the conclusion was we should soon lose the whole of them; but on seeing a piece in the Boston Cultivator, recommending the use of iron turnings, we obtained about twelve quarts from a machine shop in the spring of the year, and first hoeing the ground round the trees from the body about two feet, we incorporated about one quart to each tree, hoeing it in, but not so deep as to injure the roots of the trees. As all the warts we saw were removed at the time of the application, and we have seen but two or three since, and these probably escaped notice when the rest were removed, the application proved to be quite effectual. Many of the plum trees in this vicinity have either died or become useless in consequence of black warts, within the last twenty or twenty-five years, and as this is an easy remedy, and very little expense, it would be well for those who wish to preserve their plum trees to try it. DAVID FISHER. Drewsville, N. H.

[For the Cultivator and Country Gentleman]

MANAGEMENT OF PEACH TREES.

EDS. CO. GENT.—Although it is but a short period of time since I first subscribed to your most excellent journal, it has been to me a great source of information and gratification. Being myself deeply interested in anything pertaining to agriculture, I have taken the liberty of giving a little of my experience in the cultivation of peach trees and the application of lime to their roots, having noticed in your issue of the 10th of Jan., of their having been inquiries in relation to such application, in one of the previous editions.

The farmers in this vicinity seem to be impressed with the idea that it is useless to undertake to grow the peach tree, in consequence of its having been repeatedly attacked by the yellows. I have been very successful in growing the trees and the peaches. My manner of treatment has been this: I commence every spring, and top down half of last year's growth. Then I examine the roots for borers, making up my mind that the trees may as well die by the knife as by the worms. I cut into the lower extremity of the trees, wherever I find sap oozing out, with a sharp pointed knife, until I find the worm; then put from two to six quarts of slaked lime around the roots. This seems to answer all purposes; although I think it full as good a plan to dig the earth away from the main stem of the tree, and if possible, so much so as to admit of the hand being placed under, where the tap root usually grows; the bark will then become so hard by being exposed to the air, that the borer cannot enter.

I generally put a piece of oil soap in the clefts of the trees, which makes sufficient suds, whenever we have rain, to keep the bark free from insects, and in a good smooth healthy condition.

If this plan is pursued, and the soil well manured and plowed, I have no doubt, if the experimenter never has grown a crop of peaches, he will for the first time. Try it. J. H. M. Rye, N. Y.



ALBANY N. Y., APRIL, 1861.

There was one important point made by Dr. Fitch in the paper read by him at the Annual Meeting of our State Agricultural Society. We have forborne allusion to it, hitherto, in the hope of presenting his remarks at length in his own words; and, in the anticipation of being able soon to do so, we shall now refer only very briefly to the point in question.

Dr. Fitch has heretofore expressed the opinion, as our readers are already aware, that the Wheat Midge, which has been so destructive throughout a large district of country here at the north in years past, will ere long run its course, so to speak, as was the case, for example, with its predecessor, the Hessian fly. That it will cease to become a formidable enemy to our farmers, so many of whom have given up wheat entirely, owing to its ravages. And that, in course of time, we shall be no more liable to loss of crops from this and other insects, than are the farmers of European countries, who suffer now far less than we do from their invincible and relentless forces.

The ground upon which the foregoing views are based, is this: that when an insect first gains a foothold in new territory, its increase in numbers, unrestrained by the parasites and enemies which had made it their prey in other countries, is surprisingly rapid, enabling it sometimes to spread over and devastate immense regions; but that other insects, kindly ordered in the economy of Nature as counter checks upon its multiplication, will eventually follow in its footsteps, and restrain within certain limits its power of evil. Dr. Fitch illustrated this very pointedly, in the present experience our California friends are having with that emblem of useful industry, the Honey Bee,—which, according to newspapers and correspondents, has there frequently become almost as abundant as the common house fly, swarming in shops, houses and kitchens, wherever sweets are exposed or there is anything else on which it can feed. Probably great care was taken to import no hives in which the *bee moth* had a lurking place, and this very precaution has shown that although the latter is execrated here as a foe that must be driven out, it yet subserves a most useful purpose in our protection, and that until it finds its way to the Pacific Coast the bee itself may still continue to be regarded as rather a plague than a blessing.

So much for Dr. Fitch's theory. He was led last year to make extensive observations in the fields of wheat through the north-eastern part of this State and the adjoining portion of Vermont. And he found so very few heads of wheat any where, in which there was a trace of the midge to be seen, that he considers it to have abdicated in that region, at least temporarily. He argues consequently, that throughout the section of country referred to, *farmers need have no fear of sowing this year all the spring grain they choose.* While we do not understand him as asserting that the midge will *never* return to it, we do understand that he considers himself safe in speaking for the season of 1861. We trust that the result will vindicate (as we doubt not it will) the correctness of his position.

At the Annual Meeting of our State Agricultural Society, a resolution was adopted calling the attention of American Manufacturers of Agricultural Machinery, &c., to the contemplated Exhibition of the Industry of all Nations to be held at London next year.

The corresponding "World's Fair" in 1851 did much to acquaint European Nations with our implements and machines. Many of them are doubtless calculated to compete to advantage on the Continent and in the Colonies, with those of English manufacture. And it is to be hoped that our manufacturers will not allow the coming oppor-

tunity to escape them, of representing abroad fairly and completely whatever progress we may have made during the past ten years, in this department of effort.

We are reminded of the subject at present, in reading Count de GOURCY's Account of his last Agricultural Tour in Northern Germany, Holland and Belgium. At the Agricultural School at Proskau in Silesia he found an American plow "with changeable mould-board," which, with several English implements, "came from the London exhibition of 1851;" at Zierow in Mecklenburg, the Baron de Biel had had a Hussey's Harvester "since the London exhibition," and M. de Behr, near Namur, was using American plows and a McCormick Reaper, with which he appeared well satisfied; in Holland, a "New-York plow" is spoken of at Wilhelmina-dorp; at Annaberg near Bonn, he visited a proprietor who had imported from America "excellent plows" and other tools, together with axes, and another who was using an American thrashing machine, which he had also met with before "in the possession of several cultivators along the Rhine," and he speaks of seeing another and different one afterwards. Mention is made of these things casually, and in several cases with direct reference to the great London Exhibition. When repeated in 1862, we cannot doubt that it will attract a still larger number of enlightened agriculturists among the crowds of visitors who will throng there from every civilized country in the world; and they will come this time, not, as they probably did before, entirely without the hope of finding anything worth their attention in the American department and its agricultural contributions.

WARNING AGAINST AN IMPOSTER.—About the middle of February, we received a note from an establishment at Green Point, Long Island, stating that the proprietors had been visited six weeks or two months previously, by a person representing himself to be "the son of LUTHER TUCKER," and the one mentioned in our firm, and that in consequence of these representations he had succeeded in obtaining "five dollars, as he was short of funds, which he was to return as soon as he reached home." We replied at once to say that the whole thing was a bold imposture, and requested farther particulars. The nature of the reply is such that we consider it our duty to present thus publicly a warning against any farther efforts of the same sort to which this rascal's past success may lead him. He not only "seemed to be minutely familiar" with our office and business—a familiarity which must have been manufactured entirely "out of whole cloth"—but also "with all the particulars relative to the State Agricultural Society and the leading men in it, and *showed bills for collection against different parties*" in favor of our firm, and "said he had remitted home a day or two before all his money but about \$20" which he had just lost, and wanted to borrow \$5 to get home with.

"In his appearance, he was genteel, well dressed, would weigh about 140, height 5 ft. 8 or nine inches, dark hair, rather a round smooth face, a little florid and no whiskers or moustaches."

We have given these particulars at so much length, from the fear that the attempt may be renewed hereafter, and in order that readers may be guarded against the appearance of the imposter and his mode of procedure. It may be added that we are not in the habit of collecting bills, except through the mails, and that consequently any one pretending to have such bills from us may be set down as an imposter unless there is personal or indisputable evidence to the contrary.

P. S. Since the above was written, we hear of a similar imposture in New-York—the rascal this time passing himself off as an employee at the State Ag. Society's rooms.

We are indebted to Mr. WM. INGELL of Oswego county for a sample of Cauliflower Seed of which Mr. I. says: "It is the earliest and best I ever saw—start the plants the 1st April in a hot-bed and cultivate in rich soil and you can have good sized heads the fore part of July." Mr. I. labels this seed the "American Cauliflower."

A subscriber in Indiana, says, in a late letter—"I certainly deem your COUNTRY GENTLEMAN the Napoleon of agricultural publications."

Does imported blood degenerate on this side the Atlantic? Are our men punier and more hatchet-faced, and our women sallower and slimmer, than their English ancestors or contemporaries? Do our horses become more sluggish and less powerful—our cattle tenderer and more diminutive,—our sheep smaller and bonier, less juicy as to chops of lamb, less weighty as to saddle of mutton? Will the preternatural legginess of Shanghai and Brahma be stunted in the free atmosphere of a republic; and the obese swine of Yorkshire, or Suffolk, or Windsor, shall they the less weigh down their little pegs with vast rotundity of superstructure for pork-barrel and smoking-room?

Perhaps it would be difficult to answer all these questions with the same Yes or No. Perhaps we should suffer, and perhaps not, in the comparative human avoirdupois of the United States and Great Britain; for there are slim Cockneys as well as fleshless Yankees, and tall and portly Kentuckians as well as short and thick John Bulls. Perhaps our roadsters and racers had better retire from the field,—yet there are occasional exportations of the former for Imperial service, and Mr. TENBROOK we believe has not entirely given up the contest as regards the latter. Perhaps our Short-Horns had better be counted out—we can tell better when we know whether Mr. THORNE'S bulls which soon go over to English hirers, ever re-cross the water to Occidental shores. And so of South-Downs, and Shanghais, and Suffolks—whether we are to improve or deteriorate the type received by our importers from foreign sources, may be a question of time, even with the utmost effort on the part of those who breed them, and the most liberal encouragement on the part of a large and intelligent farming community.

Our State Agricultural Society has long deemed it a leading object to encourage the importation of Foreign Cattle. It has done so by placing them in separate classes at its exhibitions, from those of home breeding—partly in order especially to secure a full representation of imported stock by offering prizes, some one or other of which anything imported has been almost sure to win,—and, partly, for the protection of home-breeders against competition, in the common presumption that competition with imported blood could not be otherwise than to their disadvantage.

But we have now turned a corner, so far as Cattle are concerned. It was proposed by several members of last year's Executive Board, to omit the Imported Classes as distinguished from those of home-breeding, and to offer one set of prizes only in all the different breeds, Short-Horn, Hereford, Devon, Ayrshire, and Alderney, in which Native Americans shall stand an even chance with the latest arrivals from Great Britain. It was considered inexpedient to make the change too abruptly. Those who have read the report of our recent Annual Meeting, will have discovered, however, that the propriety of the procedure was there referred to, and its adoption in the next prize list, finally resolved upon.

This is a move that a few years ago would have excited great attention. But now it scarcely elicited a word of discussion; and since the meeting, several weeks having already elapsed, nobody seems yet to have found out that the change was made, although duly and distinctly announced. We have deferred any comment ourselves, with the view of awaiting comments from others; as none have come, we conclude that breeders here are quite satisfied to compete with imported stock. There is one thing, at least, very certain, that we ought to import nothing that would be unwilling to compete with what we can breed; and it has been for several years our own view of the case, that it would be far more likely to strengthen than to weaken the position of our best herds, to show that they were not afraid to stand side by side with those of the land from which their progenitors originally came.

We have received from the American Hydropult Co., New-York, one of this most useful and convenient instruments for sprinkling water, or throwing a jet either upon trees or plants, or in case of fire, or for window washing, or for any similar purpose. The very high commendation which Dr. FIRCH and others who have tried the Hydropult, accord to it so freely, induces us to ask

general attention to the advertisement of it in another column, and to second Dr. F.'s recent proposition that all our readers who have any occasion for its use, (and who, in the country, has not?) should avail themselves of the opportunity of trying the present invention.

THE ILLUSTRATED HORSE DOCTOR: Being an Accurate and Detailed Account of the Various Diseases to which the Equine Race are Subjected; together with the Latest Mode of Treatment, and all the Requisite Prescriptions, written in Plain English. By EDWARD MAYHEW, M. R. C. V. S., &c., &c. New-York: D. Appleton & Co.

This is not a treatise on the breeding and training of Horses, nor on their general management,—but simply what its title page specifies,—a *Horse Doctor*, comprising full details as to the Diseases and Accidents to which all the various organs of the animal are liable, amply illustrated, plainly described, and accompanied by the best and simplest prescriptions which the author's experience can furnish. Numerous cruelties, practiced by the English grooms upon their charges, which, we sincerely trust are as yet unknown in this country, are exposed and reprobated. Cruelty of other sorts, however, may not be uncommon, and Mr. Mayhew proves that it is everywhere "a very extravagant indulgence," when regarded merely from a pecuniary point of view. The volume forms a handsome octavo of 536 pages, and contains more than 400 engravings which will be wholly new to the American reader. Price \$2.50. We shall probably be able, hereafter, to present some extracts as samples of Dr. MAYHEW'S style and prescriptions.


HOW PLANTS GROW.—A Simple Introduction to Structural Botany. With a Popular Flora, or an Arrangement and Description of Common Plants, both Wild and Cultivated. Illustrated by 500 Wood Engravings. By ASA GRAY, M. D. Fifth Edition. New-York: Ivison, Phinney & Co., 48 & 50 Walker St.

This little work is the most complete and attractive with which we are acquainted, as an introduction to the science of which it treats. Dr. GRAY is Professor of Natural History in Harvard University, and is known as an authority upon Botanical subjects, while, as a writer, his style is both clear and concise, his method is thoroughly systematized, and the illustrations prepared for his several text-books are so numerous and well executed as to impress at once upon the eye exactly the meaning of the thing or term that is illustrated.

Of the volume before us, which is designed to open the way, either in the family or public school, for the use of larger treatises,—there are 104 pages and 229 engravings, devoted to "the general plan of the plant and the way it grows; the parts plants consist of, their uses, general forms, and the names used to distinguish them"—thus comprising the structure of plants, their propagation, purposes and classification. The remainder, 128 pages and 287 engravings more, includes what is termed "a popular Flora" on the title page, together with a dictionary of terms, and a full index of the whole. [Price 75 cents.]

The wonderful labor devoted by the scientific men of Great Britain to the investigation of scientific questions, is illustrated in a paper lately contributed to the *Philosophical Transactions* by JOHN BENNETT LAWES, Esq., and Dr. J. H. GILBERT, entitled "An Experimental Inquiry into the Composition of some of the Animals Fed and Slaughtered as Human Food." The record of the experiments described fills nearly 200 large quarto pages, including 64 tables in figures of the results of the various trials, analyses, &c. Our thanks are due to the Authors for a copy, just received by the attention of Dr. EVAN PUGH of the Pennsylvania Agricultural College, which we shall examine with great interest, and perhaps endeavor, at a later day, to share with our readers the results of the examination. The inquiry undertaken is one of great interest not only directly to the Farmer, but not less materially to the chemist and physiologist.

AGRICULTURAL EXHIBITIONS.—The State Fair of KENTUCKY is to be held at Louisville, Sept. 17-21; that of IOWA at Iowa City, Sept. 24-27; the Show of the Wisconsin Ag. and Mech. Association at Milwaukee, commencing Sept. 2.

 The New-York State Agricultural Society will hold its next Annual Cattle Show and Fair at WATERTOWN September 17, 18, 19 and 20.

In announcing this as the result of the session of the Executive Committee at Syracuse last week, we may mention, as evidence of the spirit with which Northern New-York enters upon the undertaking, and of the value which those capable of judging, place upon our State Fairs as means of drawing out the people—the fact, that the Railroads passing through Watertown, alone contribute the sum of *two thousand dollars* toward the expenses of erections, &c. The Erie railroad gave \$1,500 at Elmira last year—we doubt not that in both cases, the investment is one productive of far more than a four-fold return.

The time of the Fair, it will be noticed, is a fortnight earlier than has been customary for many years past,—partly owing to the fact that we are going northwardly, and partly in order to strike upon a week in which, according to numerous meteorological tables kept in that vicinity and extending over a long period of time, there is less likelihood of rain than in any other during the Autumn season.

New railroad connections have been opened since the last Watertown Fair, and this, together with the change in time, and the earnestness manifested by the citizens of the place and the farmers of that and adjoining counties, leads us to regard the prospect as now most encouraging for one of the best and largest exhibitions this State has ever seen.

PLAN OF HOUSE.—Our correspondent, Dr. W. B. of Eudora, Kansas, who wishes a plan of a house combining on one floor, parlor, dining-room, bed-room, library, pantry and entrance hall to the principal rooms, will probably find a plan to suit him on p. 54, 2d vol. of Rural Affairs, (or Register for 1858,) or one of the three plans on pp. 242-3 and 4 of first volume of Rural Affairs, (Register 1857.)

TOMATO VINEGAR.—Mr. W. A. CARPENTER of Hudson, has left at our office a bottle of vinegar, made from the pure juice of the tomato, without the admixture of any other ingredient. The juice was pressed out in the fall of 1859, and left to stand in the tub for some days, when the thick scum which had risen upon it was removed, and a barrel filled with the liquid, which was only recently opened, when it was found to equal the best cider vinegar.

KEEPING APPLES OVER WINTER.—Mr. ISAIAH WHITNEY of Harvard, Mass., who described his apple cellar in THE CULTIVATOR some years since, writes us as follows: "That apple cellar still flourishes—200 barrels now in store. Last spring's stock consisted of 100 barrels, equally divided in No. 1 and No. 2, for which the New-York market gave me a margin of \$5.35 to \$5.75. Gross receipts nearly \$600."

RECLAIMED BOG ON THE ADAMS FARM.—Mr. C. A. Spear, the tenant of the farm on which stands the mansion in which the two President Adams were born, has, according to a Report in the Norfolk Co. Ag. Transactions, made some expensive and yet profitable improvements. "On some boggy and wet lands," says the report "which were formerly actually worthless, so far as regards the production of a crop, he has expended \$100 per acre in draining and covering with earth—mostly gravel—yet it has for five years paid the interest of more than \$200 an acre. It has produced an average of more than three tons, (at two cuttings,) of good hay to the acre, each season. The produce of the farm is converted chiefly into milk."

OATS ON FALL-PLOWED GREENSWARD.—In a notice of Prof. Tanner's Prize Essay on the "Mechanical Condition of the Soil Favorable for the Growth of Seed," the Genesee Farmer says that Prof. T. recommends plowing up an old sod in the fall and leaving it until seed time in the spring. The winter action of the frost will render such land a most desirable seed-bed for oats—"a soil well charged with vegetable matter, firm beneath, yet easy of penetration for the rooting of the plant, with a surface

light and free in its character for the germination of the seed. This firmness of the land for the root must be distinguished from the hardness with which wheat will contend after it has once made a fair growth."


WHEAT-GROWING IN WESTCHESTER Co.—In the Co. GENT. of Feb. 7, we published a valuable communication from J. T. T.—(it was printed J. F. T.)—giving an account of some of his farming operations in the town of Rye, near New-York. In a late letter, J. T. T. says:


"I harvested a crop of winter wheat last summer, on seven and a half acres of land, at an average yield of thirty-three bushels and five quarts per acre, weighing 63½ lbs. per bushel. I followed it with a crop of buckwheat, the yield of which was thirty-one bushels per acre. I then ran one of Shares' Coulter Harrows over the ground, without plowing, and sowed with rye. The results perhaps you will learn another time. By the way, should not our farmers sow their wheat on sod ground, and then follow with corn, in lieu of planting corn on sod ground and following with wheat? I think they should, and believe substantial reasons can be given. What say the wheat-growers? My success has been on sod ground."

THE PRINCIPLES AND PRACTICE OF LAND DRAINAGE: Embracing a Brief History of Underdraining; a Detailed Examination of its Operation and Advantages; a Description of Various kinds of Drains, with Practical Directions for their Construction, the Manufacture of Drain Tile, &c. Illustrated by nearly 100 Engravings. By JOHN H. KLIPPART, author of the "Wheat Plant," Corresponding Secretary of the Ohio State Board of Agriculture, &c., Cincinnati: Robert Clarke & Co.

We acknowledge the receipt of a copy of this new Volume from the Publishers, and may notice it hereafter, upon farther opportunities of examination. Judging from hastily turning over its pages, the title page copied above presents a very fair summary of the Author's design—his main object, apparently, having been to present such a compilation of the writings of others upon the different points therein specified, as he thought best calculated to aid the Farmers of Ohio in determining upon the expediency of draining their lands, and in carrying out the project, when determined upon, to the best advantage. [454 pp.—price \$1.25.]

WHAT IS A FAIR BUTTER YIELD PER COW?—A correspondent of the COUNTRY GENTLEMAN in a fine Dairy region, after alluding to the instances of large production from well-bred cows, noticed now and then in different dairies—such for example as the Ayrshire heifer, mentioned in our letter from Unadilla—adds the following sensible remark: "I really wish our Dairy farmers could be made to understand and appreciate such stubborn facts, and not attribute *everything* to feed and care, or to the still more foolish notion, that it is all 'because Mr. So-and-so owns the animal,' while in his hands she would be no better than any other. In my opinion, our Dairymen should not be content with less than 200 lbs. yield of butter from a cow, feeling that anything short of this is just so much less than a fair *crop*, so to speak, from the dairy."

 It is stated that his Royal Highness, the Prince of Wales, has lately sent over "two fine buck sheep for Mayor WENTWORTH of Chicago, and two very fine pointer dogs for Mr. SPENCER of the Chicago, Alton and St. Louis Railroad. When at Chicago, Mayor W. took the Prince to his farm, and showed him some fine stock he had got from "the old man" (Prince Albert) which greatly amused the Prince. With Mr. Spencer he went with his suite on a shooting trip on the prairies, and was handsomely entertained at his residence. Hence, probably, the presents."

 We organized an Ag. Society on the 5th of Jan., 1861, called the "Adams Co. Ag. Society," and have a charter—meet every two weeks in the afternoon, for interchange of opinion on all subjects connected with Agriculture. The names of the officers are—Prest., John Burkholder—Vice Prests., Jacob Titzer and Wm. Walkay—Rec. Sec'y, George Wilson—Cor. Sec'y, Wm. B. Wilson—Treasurer, Barnet Myers. We propose holding an Ag. Fair this fall.

W. B. W.

The Mark Lane Express, just received, under date of the 18th ult., devotes great space to extended Reports upon the results of the Crops of 1860, and the prospect of the Wheat Crop of 1861. These Reports come from different parts of each County in England, and number upwards of *three hundred*,—so that, as will be readily understood, they must show very fairly the exact condition of the whole country at present, with regard to the points under consideration. "Both in respect to Cereal and Root crops," says the editorial abstract, "the past year has been calamitous for the farmer, as well as to the country at large."

"A vast amount of human food, as well as that for cattle, has been destroyed by weather such as we have had no parallel since 1816. This alone, notwithstanding the largest importations ever realized, fully accounts for the present high range of agricultural produce."

"A still more important fact is also elicited by these reports, relative to the breadth of land sown hitherto with wheat for the next crop. This appears to be quite as deficient as in the memorable autumn and winter of 1852-53, and probably more so. If the next two months should prove unfavorable to the spring sowing, the land will be laid down with other grain than wheat. Fears, too, are entertained that a large proportion of the wheat already sown will not vegetate, or has been destroyed by the frost, in consequence of its weak state from late sowing and the immature condition of the seed. There is consequently the fear of a deficient harvest next season, which it will be well for those who are more immediately concerned to keep in view, and to watch with vigilant attention the influence of the rising year upon the growing crop."

The weather of the coming spring in England, will therefore be watched with scarcely less care than that of last autumn, when her grain fields were again and again prostrated by storms, and her harvests exposed so long and so destructively. There seems to be no reason for doubt that all the breadstuffs we can spare will find a market, and the opening of navigation, now close at hand, will probably witness great activity in their shipment from the interior to the seaboard.

—Shall we be wrong in advising our farmers to sow largely this spring of the different grains? It is scarcely to be anticipated that we shall have, over so wide an extent of country, and with so few drawbacks upon production, a second season like that of 1860: if we do not, with as large a breadth under the cereals, we shall yet, in all probability, have considerable to export; while, if we should, will not the farmer who has the more grain to dispose of, be so much the better prepared to bear an unremunerative price?

CHOICE GRAPES.—For \$5 I will deliver at the Express Office in Lyons, the following well grown Grapevines, securely packed: 1 OPORTO, 1 Hartford Prolific, 1 Concord, 1 Union Village, 1 Clinton, 2 Isabellas, 1 Catawba; also 12 Doolittle Black Cap, and 12 Lawtons. Send for Circular of Lyons Nursery.
March 21—w3tm1t. E. WARE SVLVESTER, Lyons, N. Y.

R. L. ALLEN'S MANIPULATED GUANO.
This is a mixture of Peruvian and the choicest American Guano. The first contains a large proportion of Ammonia, and the latter a large proportion of soluble Phosphates, both of the highest importance to rapid germination and large crops. The combination of the above elements is just what is required to make a universal fertilizer. Any one can make this mixture for himself. But there are so many qualities of the American, and the Peruvian is so FREQUENTLY ADULTERATED in the hands of small dealers, and there is besides the expense and trouble in mixing in small quantities, that it is deemed an object to make a STANDARD ARTICLE of a PERFECTLY RELIABLE QUALITY, and offer this at a price predicated upon the proportions of each kind of guano used. \$45 CASH per ton of 2,000 lbs., in barrels or bags. If for immediate use, it may be packed in bags, containing about 150 lbs. each; if to be kept for some time, the American Guano will rot the bags, and barrels should be used.
R. L. ALLEN,
Feb. 28—weow2tm2t—Apl 4—w1t. 189 & 191 Water-st., New-York.

I. T. GRANT'S PATENT DOUBLE BLAST FAN MILLS.

They will chaff and screen wheat in passing through the mill once, in the most perfect manner, and all kinds of grain and seed. Warranted the very best in use.

Patent Rights for sale of all the Western States.
Address I. T. GRANT & CO.,
May 1—m12t Junction, Rensselaer Co., N. Y.

NO. 1 PERUVIAN GUANO.—Warranted Pure.

Superphosphate of Lime,
Pure Ground Bone, Land Plaster,
Lodi Manufact'g Company's Poudrette, &c.

Sold at the North River Agricultural Warehouse,
GRIFFING BROTHER & CO., Proprietors,
Jan. 1—m4t. 60 Courtlandt Street, New-York City.

GREAT AUSTIN SHAKER STRAWBERRY.

The price of this mammoth variety will be reduced this spring to \$2 per dozen, or \$10 per hundred. Delivered in rotation as ordered. The Great Austin was exhibited last year in Boston, New-York, Philadelphia, Rochester and Albany, and acknowledged to be the most beautiful, and to average the largest and most productive of any strawberry in cultivation. A liberal discount to those that purchase by the thousand. Orders addressed to either

CHAUNCEY MILLER, Shaker Trustee, Albany, N. Y., or
WM. S. CARPENTER, 468 Pearl-Street, New-York.

March 28—w4tm1t.

STUMP AND ROCK PULLERS.

Hall's Hand Stump Pullers, price,	\$60.00
Willis' Power Stump Pullers, small size,	150.00
do. do. largest size,	225.00
Lyon's Hand Stump and Rock Pullers,	80.00
Bolles' Power on Wheels for Rocks,	230.00

This machine lifts the rocks and transports them where required.
For sale by R. L. ALLEN, 189 & 191 Water-st., New-York.
Feb. 28—weow2tm2t—April 4—w1t.

PERUVIAN GUANO—Government brand and weight.

ICHABOE GUANO.

AMERICAN GUANO.

FISH GUANO.

IMPROVED SUPERPHOSPHATE OF LIME.

BONE DUST, FINE AND COARSE.

LAND PLASTER.

For sale in quantities to suit purchasers.

A. LONGETT.

March 1—m3t.

No. 34 Cliff-st., New-York.

SEEDLING POTATOES FOR SALE.

I. VARIETIES.—1. GARNET CHILLI, red. 2. PINK EYE RUSTY COAT, white. 3. CUZCO, white. These three sorts are all sound, and ripen with the season. The two first are the hardest sorts known, and yield nearly alike. Third is a little less hardy, but uniformly and everywhere the LARGEST YIELDER I have known. 4. NEW KIDNEY, white. 5. COPPER MINE, copper colored. These two sorts are both a little long and ripen two weeks earlier than Nos. 1, 2, and 3. Though hardy, they are a little less so than Nos. 1 and 2. These five varieties all have white flesh, all grow closely in the hill, do not push out of the soil, and are SMOOTH, except that No. 3 is deep eyed. They yielded in 1859, in common field culture, from 255 to 372 bushels to the acre.

II. AGE AND DIFFUSION.—The GARNET CHILLI is a seedling of 1853, is now very widely known and prized as a sort adapted to all soils and climates. The others are all Seedlings of 1856, and were first given out in 1860. They too are widely spread, (from Massachusetts to Kansas, and from Missouri to Canada West.) Numerous reports on their culture in 1860, (a season almost everywhere either very wet or very dry,) show a wide adaptation to soil and weather. These reports would indicate (what my home experience justifies) that the PINK EYE RUSTY COAT is nearly or quite equal in all respects to the GARNET CHILLI.

III. PRICE.—\$3 (three dollars) per barrel of 140 lbs., \$1.50 per bush., \$1 per half bushel, and 50 cents per peck, CASH IN ADVANCE. The larger price is charged for the smaller quantities from the proportionally greater cost of packing and delivery.

IV. TRANSMISSION.—They will be forwarded by railroad, canal or express, as shall be directed. The sorts will be kept distinct, and the packages carefully directed. The sorts will be described in a printed sale bill, with directions for potato culture, which will be forwarded by mail when the potatoes are sent.

Sums of less than \$1 may be sent in 3 cent postage stamps.

Should any one wish to get small packages of these five sorts, I will put up two tubers of each and forward by Express to those who have previously sent me 30 cents in postage stamps.

In the sales of many years I have had but one package eventually miscarry.

The first of April is as early as potatoes can usually be sent safe from frost, except they go directly south.

CHAUNCEY E. GOODRICH, Utica, N. Y.

REFERENCES.—The Garnet Chili is too widely diffused and too highly appreciated to need testimonials. The other four sorts are favorably known to the following, among many others who have cultivated them the past year: Albert Breese, Hubbardton, Vt., Wm. F. Bassett, Ashfield, B. K. Bliss, Springfield, C. H. Gleason, Holden, all of Massachusetts; C. G. Hazletline, Cherry Valley, Wm. P. Humphrey, New Rochelle, Wm. F. Ridder, Busti, S. T. Kelsey & Co., Great Valley, Geo. Arkell, Canojaharie, all of New-York. Thos. T. Marther, Jenkintown, E. M. McConnell, New Castle, Wm. S. Gray, Half Moon, P. Sutton, Pittston, Aaron Bomburgh, Harrisburgh, and F. W. Noble, all of Pennsylvania. Dr. E. P. DeMarcellin, Spottswood, B. F. Robinson, Goodwinville, and Benj. Shepherd, Greenwich, all of New-Jersey. J. C. Holmes, Lansing, Mich., S. L. Manker, Pontiac, and John Moss, Robin's Nest, Ill., J. Howard McHenry, Baltimore, Md., Yardley Taylor, Loudon Co., Va., and Geo. Buckland, Canada West.
Feb. 21—w3tm1t.

PIANOS, \$150!—PIANOS, \$150!!

RICH ROSEWOOD CASES---WARRANTED.

Having Rebuilt our Factory we are again Furnishing our

SUPERIOR PIANOS!

ALL PRICES AND STYLES.

Send for DESCRIPTIVE PRICE LISTS and CIRCULARS to

BOARDMAN, GRAY & CO.,

Manufacturers,

Albany, N. Y.

Jan. 3—weow3tm2t.

CHOICE VEGETABLE SEEDS BY MAIL.

The following varieties will be mailed to any address in the Union on receipt of the price affixed, which may be remitted in postage stamps or current bills:

50 Seeds Hubbard Squash,.....	15 cents.
20 do. Honolulu do.	15 do.
50 do. Boston Marrow, pure,.....	15 do.
50 do. Japan Apple Pie Melon,.....	15 do.
100 do. Perfection Tomato (Pomo d'oro Lesteriano),.....	15 do.
1 Packet Early Paris Cauliflowers (the best in cultivation),.....	25 do.
1 do. Marblehead Mammoth Cabbage (Gregory's),.....	25 do.
1/2 ounce Stone Mason Cabbage (Gregory's),.....	15 do.
1/2 do. Premium Flat Dutch Cabbage,.....	15 do.
1 Packet Lee's New Sprouting Broccoli, (a new English variety),.....	50 do.
1 ounce Yellow Danvers Onion, (the best variety),.....	25 do.

The entire collection will be sent by mail, prepaid, for \$2. Cash must always accompany the order.

The above may be relied upon as the very best of their kind in cultivation. Address B. K. BLISS, Springfield, Mass.

March 14—w4tm2t.

OSIER WILLOW CUTTINGS.—

The best variety for market and for live fence (*Salix purpurea*)—price \$3 per 1000. By mail, postpaid, for experiment, \$1 per 100. Jan. 17—w16tm4t. D. L. HALSEY, Victory, Cayuga Co., N. Y.

LANDSCAPE GARDENING AND RURAL ARCHITECTURE—Landscape, Agricultural and Civil Engineering, Surveying, Leveling and Draughting.

GEO. E. WOODWARD,

Architect, Civil Engineer & Draughtsman,
No. 29 BROADWAY, NEW-YORK.

Country Seats, Parks, Rural Cemeteries, and public and private roads, laid out and superintended. Plans, Elevations and Working Drawings for Buildings in all departments of Rural Architecture, prepared and mailed to any section of the country. Consultations gratuitous, personally or by letter. March 21—w&mtf.

HIGHLAND NURSERIES, Newburgh, N. Y.

A. SAUL, (successor to the late A. J. Downing & Co.) has the pleasure of announcing to the patrons of this old establishment, and the public in general, that his stock of

Fruit and Ornamental Trees, Plants, &c., for sale for the ensuing spring trade, is full and complete, and comprises everything to be obtained in his line of business, viz:

A large stock of Apple, Pear, Cherry, Plum, Peach, Apricot, Nectarine and Quince trees, 1 to 3 years from the bud, of superior quality and growth. Grapevines, native and foreign, embracing all the new and rare varieties. Gooseberries, Currants, Raspberries, Blackberries and Strawberries, of all the new and old proved varieties. Rhubarb and Asparagus roots do.

ORNAMENTAL TREES.

EVERGREENS.—A large stock of Norway Spruce of all sizes, Balsam Fir, European Silver Fir, Austrian, Scotch and White Pines, Hemlock and American Spruce, Arbor Vitae, Junipers, (in varieties,) and a great variety of new and rare Conifers from 1 to 5 feet high.

DECIDUOUS TREES of extra size, for street planting, and giving immediate effect to Parks, Lawns, Cemeteries, &c., &c., such as Maples, 8 varieties; Elms, 10 varieties; Ash, 8 varieties; Oaks, 6 varieties; Catalpas, Horse Chestnuts, Ailanthus, Larch, Tulip (true,) Abele, Negundo, Mountain Ash, Deciduous Cypress, Weeping Willows, Lindens, &c., &c.

FLOWERING SHRUBS.—Over 50 choice species and varieties. **ROSES.**—A large collection of Hybrid Perpetual, hardy Garden and Moss, China and Tea, &c.

HEDGE PLANTS.—100,000 Osage Orange plants of extra growth, 1 to 3 years old.

The above stock is all of the best quality and growth, and will be sold on the most reasonable terms.

A new Catalogue will be ready about the middle of March, and will be sent to all applicants enclosing a P. O. Stamp to prepay the same.

A. SAUL, Highland Nurseries, Newburgh, N. Y.

March 7—w&mtf.

SHORT-HORN BULLS.

I offer for sale two Duke of Oxford BULL CALVES, one of them got by the "Duke of Gloster," (11382,) the other by imported "Grand Duke of Oxford," (16184.)

Also several well bred Bull and Heifer Calves by the same sire. I have also a few

JERSEY OR ALDERNEY

Cows and Heifers for sale. JAMES O. SHELDON, Jan. 24—w&mtf. White Spring Farm, Geneva, N. Y.

THOS. WOOD continues to ship to any part of the Union, his celebrated PREMIUM CHESTER CO. WHITE HOGS, in pairs not akin, at reasonable terms. Address, Jan. 10—w&mtf. PENNINGTONVILLE, Chester Co., Pa.

EXTRACT OF TOBACCO.—

For dipping Sheep and Lambs, and for destroying all kinds of vermin on other animals.

The manufacturers of this new and valuable preparation, beg leave to call the attention of Farmers and Graziers to this effectual remedy for destroying Ticks, Lice, and all other insects injurious to animals and vegetation, and preventing the alarming attacks of the Fly and Scab on Sheep.

It use not only removes the vermin on animals but cleanses and purifies the skin, thereby materially benefitting their general health, and greatly improving wool, both in quality and quantity.

This article completely supersedes that LABORIOUS and DISAGREEABLE work of preparation in your own buildings for sheep-washing, as it is ready at all times, in any climate, and for all descriptions of Sheep, even for Ewes in lamb, and can be furnished at a reduced cost.

FISHER & CO., Sole Agents, 23 Central Wharf, Boston.

March 14—w&mtf3mos.

BLACK HAWK STALLIONS FOR SALE.

HERO.—Nine years old, 15 hands high, coal black and very fast. Got by "Hill's" "Old Vermont Black Hawk," Dam by "Sherman Morgan," Grand-dam by "Membrino." Price, \$1200.

KENTUCKY HAWK.—Six years old, 15 hands high, dark chestnut and very handsome, has trotted in 2:48. Got by "Hero," dam half sister to the celebrated pacing mare "Pocahontas," got by "Cadmus," and out of a thorough-bred mare. Price, \$1,000.

CAYUGA HAWK.—Four years old, 15 1/4 hands high, rich sorrel, has trotted in 3:10, on an eighty rod track, without training, and bids fair to outfoot "Kentucky," his full brother. Price, \$1,000. If not sold by the 1st of May, "Hero" will be rented for the season or on shares to any one giving proper security. Full particulars and pedigrees furnished by addressing

THOMAS GOULD, Aurora, Cayuga Lake, N. Y.

March 21—w4m2t.

THOROUGH-BRED NORTH DEVONS FOR

SALE.—Annette, (1151,) 3d vol. Devon Herd Book, cow and sire both imported. In calf by an imported bull.

Also yearling and 2 year old Bulls, Heifers and Heifer Calves.

ALFRED M. TREDWELL, Madison, Morris Co., N. J.

March 14—w2tm1t.

MISSOURI FARMS.—THE HANNIBAL &

ST. JOSEPH R. R. COMPANY offers for sale

Over 500,000 Acres in Northern Missouri,

Of the finest Prairie and Timber Farming Lands in the West, in Lots to suit Purchasers, at low Prices, on the long Credit of Ten Years, at Five Per Cent Interest. Pamphlets, Circulars and Maps, giving full and reliable information on the Climate and its healthfulness, Soil, Water, Timber, Coal, Rock, Productions, Markets, &c., can be had gratuitously on application by letter or otherwise, to

GEO. S. HARRIS, Eastern Land Agent, 40 State Street, Boston, Mass., or to JOSIAH HUNT, Land Commissioner, of the H. & St. J. R. R., Hannibal, Mo.

The undersigned continues to act as Agent of the NEW-ENGLAND COLONY TO MISSOURI, and will furnish all desired information of this promising enterprise. Address

GEO. S. HARRIS, Boston, Mass.

Mar. 14—w4tm1t.

SHORT-HORN BULLS FOR SALE.

The subscriber offers for sale four Short-Horn Bulls, all of fine size and symmetry; three of them are out of imported cows by imported or the get of imported bulls of Bates stock, and the other by an imported Bull, out of a cow of the Princess stock:

DUKE OF RUTLAND—white, calved June 6, 1859; got by Duke of Cornwall, 2757, out of imported cow Famous, by Mr. Bates' Earl Derby, (10177,) &c., &c.

DUKE OF CHESTER—roan; calved Aug. 28, 1859; got by imported Duke of Portland, 1482, out of imported Lady Liverpool by Mr. Bates' 3d Duke of York, (10,166,) &c., &c.

BEDFORD—white; calved Sept. 9, 1859; got by imported Duke of Portland, 1482, out of Duchess of Exeter, by imported Duke of Exeter (10152,) &c., &c.

DUKE OF RICHMOND—red; calved Oct. 6, 1860, got by imported Duke of Portland, 1482, out of imported Alice Maud, by Grand Duke, (10284,) &c., &c. Address Dr. HERMAN WENDELL, Hazelwood, Albany, N. Y.

March 14—w&mtf.

TO FARMERS—80,000 Barrels Poudrette of

The Lodi Manufacturing Company,

For sale in lots to suit purchasers, at \$2 per bbl. under 7 bbls., or \$1.50 per bbl. for 7 bbls. and over. This is the CHEAPEST FERTILIZER in market; \$3.00 worth will manure an acre of corn, and will

Increase the crop from one-third to one-half,

and will ripen the crop about two weeks earlier. A pamphlet with satisfactory evidence and full particulars, will be sent gratis to any one sending address to

GRIFING BRO. & CO.,

General Agents for U. States, 60 Cortland Street, N. Y.

Jan. 24—w12t—m3t.

STEEL PLOWS.

We are now manufacturing a superior Steel Plow, intended for general use. Some of the advantages it possesses over the cast iron plow, are lightness of draught, durability, and freedom from clogging or sticking in heavy, clayey sticky or tenacious soils. The parts most exposed to wear are so constructed that they may be readily repaired by any blacksmith.

We would refer to the following persons who have them in use: John Johnston, Geneva, N. Y.; Wm. Summer, Pomaria, S. C.; R. C. Ellis, Lyons, N. Y.; Col. A. J. Summer, Long Swamp, Florida; A. J. Bowman, Utica, N. Y.; A. Bradley, Mankato, Minnesota; A. L. Fish, Litchfield, N. Y.; Volney Owen, Union, Ill.; John Slighter, French Creek, N. Y.

"Mohawk Valley Clipper," No. 1, full trimmed, all steel, \$15.00 do. do. with cast point, 14.00 "Empire," No. 1, with cast point, full trimmed, 15.00

For Three-Horse Plows, \$1.50 extra. For Adjustable Beams, 1.00 do.

We also manufacture Sayre & Klink's Patent Tubular Shank

STEEL CULTIVATOR TEETH.

These Teeth are intended to supersede the old style of wedge teeth and teeth with cast iron heads. They are not liable to become LOOSE in the frame, like the FORMER, nor to BREAK, like the LATTER. They are as readily attached to the frame as any form of tooth.

SAYRES' PATENT HORSE HOE.

This implement is considered to be superior to any other for cultivating Corn, Cotton, Tobacco, Potatoes, Hops, Broom Corn, Nurseries, and all crops planted in rows or drills.

Steel Shovel Blades and Cultivator Points made, and all kinds of Swaging and Plow work done to order.

SEND FOR A CIRCULAR.

REMINGTONS, MARKHAM & CO.,

Ilion, Herkimer Co., N. Y.

F. REMINGTON & SONS, BENJAMIN P. MARKHAM, GEO. TUCKERMAN.

March 21—w&mtf.

ONE HUNDRED VARIETIES OF GRAPEVINES,

For sale cheap. Catalogues mailed free. Address
W. C. LOOMIS,
Lowell, Oneida Co., N. Y.

SELECT LIST OF STRAWBERRIES.— 10 VARIETIES AND 1,000 PLANTS FOR \$10.

For \$10 we will furnish 100 plants each of the following choice kinds: Triomphe de Gand, Trollope's Victoria, Vicomtesse Hericart de Thury, Filmore, British Queen, Burr's New Pine, Jenny Lind, Hooker, M'Avoy's Superior and Wilson's Albany.

5 VARIETIES AND 500 PLANTS FOR \$5.

For \$5 we will furnish 100 plants each of the following kinds: Triomphe de Gand, Trollope's Victoria, Burr's New Pine, Jenny Lind and Wilson's Albany.

STRAWBERRY PLANTS BY MAIL.

For \$1 we will send to any Post Office address in the country, post-paid, and carefully put up in cotton and oiled silk, so as to carry safely 25 good plants of the Wilson's Albany. We will send, for the same price, the same number of plants (25) of any variety offered in our catalogue, at 25 cents per dozen.

For \$1 we will send 20 plants of the Triomphe de Gand, or any other variety we offer at 50 cents per dozen. No order filled for plants by mail, for less than one dollar's worth of any one kind.

RASPBERRIES.

Our stock of Plants is very large and fine. We have over twenty varieties, including Brinckle's Orange, at \$1 per dozen; \$5 per 100; Franconia, at 75 cents per dozen; \$4 per 100; Fastloff, River's Large Fruited Monthly, Knevet's Giant, Hudson River Antwerp, Red and Yellow Antwerp and others, at 75 cents per dozen; 3 per 100; Improved American Black Cap, 50 cents per dozen; \$3 per 100.

Persons wanting large quantities of the above will be furnished at very low rates.

SELECT LIST OF RASPBERRIES.

For \$10 we will furnish 100 Brinckle's Orange, the finest flavored Raspberry, as well as one of the largest, most beautiful and productive.

100 Franconia, a very large red berry, of good flavor, attractive and enormously productive.

100 Improved American Black Cap; much larger, more juicy, better flavored, with fewer seed, and ever way superior to the common Black Cap. The plant is entirely hardy and very productive, and the fruit is much sought after in the market.

The above kinds include the three colors—orange, red and black—and furnish a pleasant variety in flavor. We regard them as the best for amateurs, and the most profitable for market culture.

BLACKBERRIES.

	Per Dozen.	Per 100.
New Rochelle.....	\$1.00	\$5.00
Dorchester.....	75	4.00
Newman's Thornless.....	75	3.00

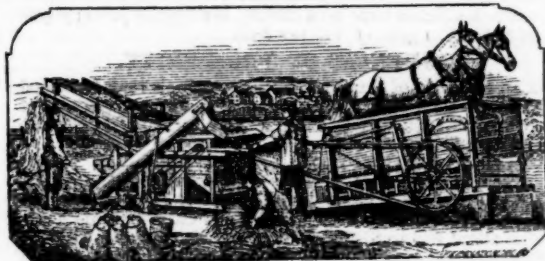
For \$10 we will send 100 of each of the above kinds.

We have fruited these varieties for five years, and having ten acres in cultivation, we are prepared to furnish wholesale purchasers at the lowest rates.

LOGAN GRAPEVINES.

Having procured a supply of the above early and valuable grape, of A. Thomson, of Delaware, Ohio, will furnish good well-rooted vines at 75 cents each—\$7 per dozen; or by mail, securely put up, and postage paid, \$1 each. J. KNOX. Lock Box 155, Pittsburgh, Pa.

March 21—w&m1t.



SCHENECTADY AGRICULTURAL WORKS.

The subscribers manufacture

Endless Chain Powers, for 1, 2 and 3 Horses.

Four to Ten Horse Lever Powers.

Combined Threshers and Cleaners.

Threshers and Vibrating Separators.

Clover Hullers, Wood Saws, &c.

A full description of which may be found in their Illustrated Circulars, which will be mailed free to all applicants.

The following is a copy of a letter received from a man who purchased, last season, one of our Two-Horse Powers, Thresher and Cleaner.

OSCEOLA, ILL., Feb. 19, 1861.

G. WESTINGHOUSE & Co.—We threshed last summer and fall some 10,000 bushels of wheat at 4c. per bushel, and about 4,000 bushels of oats at 2c. The greatest amount of wheat we threshed in one day, was 260 bushels, commencing 9 o'clock, A. M.; but as a general thing averaged 150 to 200 bushels per day, according to the yield per acre. We threshed 530 bushels of oats in one day, and where they were good, averaged about 500 bushels per day. S. M. HILL.

For Circulars or information relating to these machines. Address

G. WESTINGHOUSE & CO.

March 21—w&m1t.

Schenectady, N. Y.

ITALIAN BEES AND QUEENS FOR SALE.

For particulars send early for Circular. M. M. BALDRIDGE,
March 14—w&ow5tm2t. Middleport, Niag. Co., N. Y.

AGRICULTURAL AND HORTICULTURAL

IMPLEMENTS.—A complete assortment of latest approved patterns and best made. Farming Implements, Machines, and Tools, consisting of everything required by the Farmer, Planter, and Gardener.

Also GUANO, BONE DUST, Phosphate, Poudrette, Plaster, &c. Field, Flower, and Garden SEEDS.

Trees, Plants, and Shrubs, all of reliable quality, and furnished on the most reasonable terms. For sale by R. L. ALLEN,
Feb. 28—w&ow2tm2t—Apl. 4—w1t. 189 & 191 Water-st., New-York.



BEARDSLEY'S

HAY ELEVATOR

OR

Horse Power Fork,

Can be used by one or two horses.

Price, including three pulleys and 60 feet of rope, \$12.

Liberal discount to dealers.

Rights for sale.

Send for a Circular.

LEVI A. BEARDSLEY.

South Edmeston.

April 1—m3t.

Otsego Co., N. Y.

GARDEN SEEDS.—

I have now in store a full assortment of GARDEN, FIELD, and FLOWER SEEDS, among which will be found all the varieties of Beans, Beet, Cabbage, Carrot, (all American growth.)

CORN—Extra Early Dwarf Sweet, Early Burlington, &c., Cucum-ber, Lettuce, Melons, Onion, Parsnip.

PEAS—Princess, Lord Raglan, Epps' Monarch, Champion of Scotland, Dwarf Green, Marrow, Daniel O'Rourke, Competitor, Champion of England, all fine varieties.

TOMATOES—Fejee Island, very solid and extra fine, and all other varieties.

TURNIPI—American growth and of extra quality. Radish, Asparagus, Spinach, Squash, Salsify, Rhubarb, Rape, Parsley, Artichoke, Broccoli, Cauliflower, Celery, Cress, Corn Salad, Leek, Endive, Kale, Chervil, Collards or Colewort, Brussels Sprouts, Okra, Nasturtium, Mustard, Egg Plant, Pumpkin, Pepper, Scorzoneria, Mushroom, Herbs, &c.

TREE AND SHRUB SEEDS of all kinds.

FRUIT SEEDS—Apple, Pear, Quince, Apricot, Blackberry, Cherry, Currant, Gooseberry, Peach, Grape, Nectarine, Raspberry, Strawberry, &c.

BIRD SEEDS—Canary, Hemp, Rape, and Millet.

HEDGES—Honey and Yellow Locust, Buckthorn, Osage Orange, &c.

POTATOES—Ash-Leaf Kidney, Early June, Early Dikeman, Peach Blow, Prince Albert, and all other good varieties.

CLOVERS—White Dutch, Lucern, Red Alsike, Scarlet, &c.

GRASSES—Red Top, Timothy, Creeping Bent, Tall Oat, Green Grass, (best for lawns,) Orchard, Ray, Foul Meadow, Kentucky Blue, Sweet Vernal, Hungarian, Saintfoin, Fescue, Foxtail, Fine Mixed Lawn, &c., &c.

SPRING WHEAT—Tea, Black Sea, Golden Drop.

SPRING RYE, SPRING VETCHES, SEED BALEY.

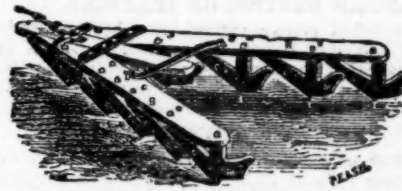
SEED OATS, Scotch and American, extra heavy and clean.

FRUIT, ORNAMENTAL TREES, SHRUBS, and EVERGREENS, and all kinds of plants furnished to order, carefully packed, from the best nurseries and conservatories in the United States.

I take especial care to see that all my seeds are fresh, and well cleaned, and the very best of the kind, which can be obtained from reliable parties at home and abroad. Orders by mail attended to promptly. SEND FOR A CATALOGUE. R. L. ALLEN,
Feb. 28—w&ow2t—m2t—Apl4—w1t. 189 & 191 Water-st., New-York.

SHARE'S COULTER HARROW.

Now is the time to send in your orders for this most useful implement. As a Cultivator and Harrow it is unequalled, saving much time and labor, as in once going over it leaves the ground in better condition than three times the same amount of labor with the Scotch, or Geddes Harrow. It is the best grain and peas coverer



in the universe, and will save its cost in one season for this purpose alone. Circulars containing references sent free on application. Price \$15.

A good stock of PLOWS, HARROWS, HAY CUTTERS, SEED SOWERS, CULTIVATORS, &c., as also a full supply of GARDEN and FIELD SEEDS, constantly on hand, and orders will receive prompt attention. Address CHAS. E. PEASE,

84 State-st., Albany, N. Y., Manufactory Tivoli Hollow.

Feb. 28—w4tm2t.

I. T. GRANT & CO., PATENT GRAIN CRADLE.

They are so improved as to be taken down and packed in boxes for transportation. One dozen can be packed in a box of about six cubic feet. We also make the Grapevine Cradle. All of the above are made of the best material and workmanship. For Price List, address

May 1—m12t

I. T. GRANT & CO.
Junction, Rensselaer Co., N. Y.

AGRICULTURAL IMPLEMENTS.—

A large assortment for sale low, to close up consignments.

March 1—m3t.

A. LONGETT, 34 Cliff St., New-York.

HOMES FOR THE INDUSTRIOUS

IN THE GARDEN STATE OF THE WEST.



**THE ILLINOIS CENTRAL RAILROAD CO., HAVE FOR SALE
1,200,000 ACRES OF RICH FARMING LANDS,
In Tracts of Forty Acres and upward on Long Credit and at Low Prices.**

THE attention of the enterprising and industrious portion of the community is directed to the following statements and liberal inducements offered them by the

ILLINOIS CENTRAL RAILROAD COMPANY.

which, as they will perceive, will enable them, by proper energy, perseverance and industry, to provide comfortable homes for themselves and families, with, comparatively speaking, very little capital.

LANDS OF ILLINOIS.

No State in the Valley of the Mississippi offers so great an inducement to the settler as the State of Illinois. There is no portion of the world where all the conditions of climate and soil so admirably combine to produce those two great staples, CORN and WHEAT, as the Prairies of Illinois.

EASTERN AND SOUTHERN MARKETS.

These lands are contiguous to a railroad 700 miles in length, which connects with other roads and navigable lakes and rivers, thus affording an unbroken communication with the Eastern and Southern markets.

RAILROAD SYSTEM OF ILLINOIS.

Over \$100,000,000 of private capital have been expended on the railroad system of Illinois. Inasmuch as part of the income from several of these works, with a valuable public fund in lands, go to diminish the State expenses; the burden is light, and must consequently every day decrease.

THE STATE DEBT.

The State debt is only \$10,106,398 14, and within the last three years has been reduced \$2,959,746 80, and it may reasonably expect that in ten years it will become extinct.

PRESENT POPULATION.

The State is rapidly filling up with population; 868,025 persons having been added since 1850, making the present population 1,723,663, a ratio of 102 per cent. in ten years.

AGRICULTURAL PRODUCTS.

The Agricultural Products of Illinois are greater than those of any other State. The products sent out during the past year exceeded 1,500,000 tons. The wheat crop of 1860 approaches

35,000,000 bushels, while the corn crop yields not less than 140,000,000 bushels.

FERTILITY OF THE SOIL.

Nowhere can the industrious farmer secure such immediate results for his labor as upon these prairie soils, they being composed of a deep rich loam, the fertility of which is unsurpassed by any on the globe.

TO ACTUAL CULTIVATORS.

Since 1854 the Company have sold 1,300,000 acres. They sell only to actual cultivators, and every contract contains an agreement to cultivate. The road has been constructed through these lands at an expense of \$30,000,000. In 1850 the population of forty-nine counties, through which it passes, was only 335,598 since which 479,293 have been added; making the whole population 814,891, a gain of 143 per cent.

EVIDENCES OF PROSPERITY.

As an evidence of the thrift of the people, it may be stated that 600,000 tons of freight, including 8,600,000 bushels of grain, and 250,000 barrels of flour were forwarded over the line last year.

PRICES AND TERMS OF PAYMENT.

The prices of these lands vary from \$6 to \$25 per acre, according to location, quality, &c. First class farming lands sell for about \$10 to \$12 per acre; and the relative expense of subduing prairie land as compared with wood land is in the ratio of 1 to 10 in favor of the former. The terms of sale for the bulk of these lands will be

ONE YEAR'S INTEREST IN ADVANCE,

at six per cent per annum, and six interest notes at six per cent., payable respectively in one, two, three, four, five and six years from date of sale; and four notes for principal, payable in four, five, six and seven years from date of sale; the contract stipulating that one-tenth of the tract purchased shall be fenced and cultivated, each and every year, for five years from date of sale, so that at the end of five years one-half shall be fenced and under cultivation.

TWENTY PER CENT. WILL BE DEDUCTED

from the valuation for cash, except the same should be at six dollars per acre, when the cash price will be five dollars.

Pamphlets descriptive of the lands, soil, climate, production, prices, and terms of payment, can be had on application to

**J. W. FOSTER, Land Commissioner,
CHICAGO, ILLINOIS.**

For the name of the Towns, Villages and Cities situated upon the Illinois Central Railroad, see pages 188, 189 and 190 Appleton's Railway Guide.